

FT SYNTHETICS

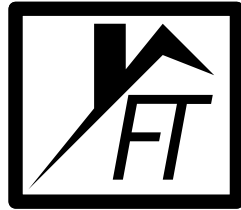
A New Generation of Underlayments

Architect Binder
Construction Specifications
Division 7
Thermal and Moisture Protection



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FT SYNTHETICS

About FT Synthetics

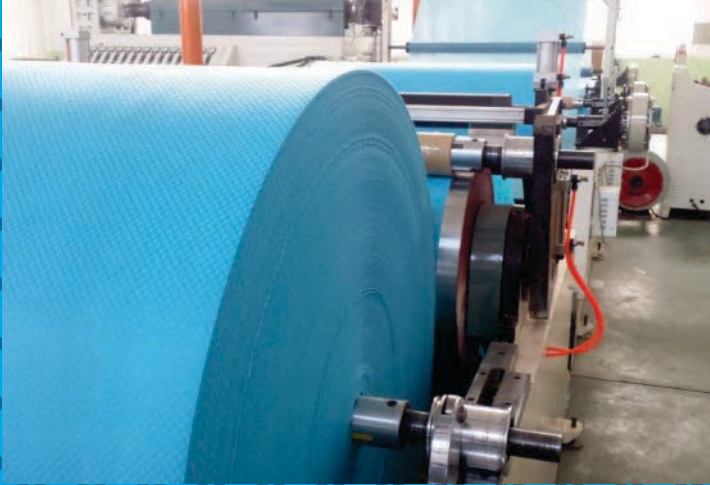
FT Synthetics is a fully integrated manufacturer serving a global market for synthetic roofing underlayments and associated construction products. Our founders have over two decades of experience manufacturing and distributing roofing products with a record of delivering exceptional materials and efficient customer service. With thorough research and innovative development, we've created a product we are certain will revolutionize the industry.

Locations

FT Synthetics headquarters are located in Surrey, BC in the Fraser Valley just outside Vancouver BC. We have two manufacturing locations: a 25000 sq ft facility in Surrey, BC and a 130,000 sq ft state of the art facility in China's eastern Shandong province with close access to major export ports.

Quality

We provide consistent and high quality products using advanced equipment for nonwovens manufacturing, weaving, coating, lamination and printing. Our commitment to quality is ensured using product and process certification via Intertek as a third party auditor.



CSI SPECS

CSI PART 1 General

1.1 SECTION INCLUDES

- A. Synthetic roofing underlayment.
- B. Self-Adhered Membrane.

1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Roof framing and sheathing.
- B. Section 07310 - Shingles, Roof Tiles and Roof Coverings: Roof coverings applied over underlayment.
- C. Section 07620 - Flashing and Sheet Metal: Gutters and downspouts.
- D. Section 08630 - Unit Skylights: Skylights.

1.3 REFERENCES

- A. ASTM International (ASTM):
 1. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
 2. ASTM D751 - Standard Test Methods for Coated Fabrics.
 3. ASTM D903 - Standard Test Method for Peel or Stripping Strength of Adhesive Bonds.
 4. ASTM D1777 - Standard Test Method for Thickness of Textile Materials.
 5. ASTM D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
 6. ASTM D2261 - Standard Test Method for Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure (Constant-Rate-of-Extension Tensile Testing Machine).
 7. ASTM D2523 Standard Practice for Testing Load-Strain Properties of Roofing Membranes.
 8. ASTM D4869 - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing.
 9. ASTM D5147 - Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Material.
 10. ASTM D5261 - Standard Test Method for Measuring Mass per Unit Area of Geotextiles
 11. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
 12. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
- B. British Columbia Roofing Contractors Association (RCABC): Roofing Practices Manual (RPM).
- C. International Code Council (ICC): AC 48 - Acceptance Criteria For Roof Underlayment For Use In Severe Climate Areas.
- D. UL 790 - Tests for Fire Resistance of Roof Covering Materials.
- E. UL 997 - Wind Resistance of Prepared Roof Covering Materials.
- F. British Columbia Building Code.
- G. CAN/CSA A123.3
- H. CAN/CSA A220.1

CSI SPECS

- I. Intertek Code Compliance Research Report
- J. International Building Code (IBC)
- K. International Residential Code (IRC)

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Submit copies of manufacturer's standard details describing installation methods and flashing conditions applicable to the project.
- D. Selection Samples: For each product specified, two samples representing manufacturer's full range of available materials.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be provided by a single manufacturer.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of one (1) years demonstrated experience in installing products of the same type and scope as specified.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship is approved by Architect.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products as per FT Synthetics requirements.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

CSI SPECS

1.8 WARRANTY

A. At project closeout, provide to the owner or owners representative an executed copy of the manufacturer's Limited Warranty against Manufacturing Defect.

FT Synthetics PLATINUM HT-SA Warranty Duration: LIFETIME Limited

FT Synthetics HYDRA Warranty Duration: LIFETIME Limited

FT Synthetics PLATINUM Warranty Duration: LIFETIME Limited

FT Synthetics GOLD Warranty Duration: LIFETIME Limited

FT Synthetics SILVER Warranty Duration: 20 Years

FT Synthetics PRO-20 Warranty Duration: 20 Years

PART 2 Products

2.1 MANUFACTURERS

A. Acceptable Manufacturer: FT Synthetics, 13120 76th Avenue Surrey BC, Canada V3W 2V6. 1-844-353-9839

B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

2.2 APPLICATION /SCOPE

A. Finished roofing material must be installed over products specified in this section within:

FT Synthetics PLATINUM HT-SA 180 Days

FT Synthetics HYDRA 180 Days

FT Synthetics PLATINUM: 180 Days

FT Synthetics GOLD: 180 Days

FT Synthetics SILVER: 90 Days

FT Synthetics PRO-20: 90 Days

2.3 ROOF UNDERLAYMENT

A. Self Adhered Membrane High/Low Temperature and Ice Damming Membrane - **FT Synthetic PLATINUM HT-SA**: Synthetic polymer surfaced self-adhered membrane roofing underlayment for sloped roofs equal to or greater than 2:12 pitch, subject to the effects of ice damming and wind driven rain.

1. Color: Gray
2. Surface: Polyolefin - GRIPSPOT™ mechanical slip resistance.
3. Release Liner: Silicone Split Release.
5. Minimum Thickness: ASTM D5147, 40 mils.
6. Tensile: ASTM D1970, MD 128.1 lb/in (58.1 kg)
7. Thermal Stability: ASTM D1970, 240 °F (110 °C). Pass.
8. Low Temp Flexibility: ASTM D1970, Pass.
9. Tear Resistance: ASTM D1970, MD 70.1/ CD 60.2 lb (622/445 N).
10. Adhesion to Plywood: ASTM D903, 4 lb/in (700 N/m).
11. Nail Sealability: ASTM D1970, Pass.

CSI SPECS

12. Installation temperature range: 40 °F (5 °C) and above.

13. Roll Size: 36 inches by 65 feet.

B. Synthetic Roofing Underlayment - **FT Synthetics HYDRA**: Polyolefin based, asphalt free, high strength, reinforced roofing underlayment mechanically attached to sloped roof decks beneath shingles, shakes, metal, and composite roofing.

1. IBC and IRC approved alternate to ASTM D 226 Type I (#15) or Type II (#30) felt.

2. Fire Performance: Class A Fire ASTM E108.

3. Permeability: ASTM E96, >16 perms.

4. Breaking Strength ASTM D5034 MD 110 lb (50 kg).

5. Breaking Strength ASTM D5034 CD 90 lb (41 kg).

6. Water Shower Exposure: ASTM D4869, Pass.

7. Tear Strength: ASTM D4533 MD, 38 lb (17 kg).

8. Tear Strength: ASTM D4533 CD, 32 lb (15 kg).

9. Mullen Burst: ASTM D751, 130 psi.

10. Weight per Square: ASTM D5261, 4.0 lb (1.81 kg).

11. Nominal Thickness: ASTM D1777, 30 mils.

12. Temperature Service Range: -40° F to 240° F (-40°C to 115°C).

13. Roll Size: 48 inches by 250 feet (1.22 m x 76.2 m), 10 Sq.

C. Synthetic Roofing Underlayment - **FT Synthetics PLATINUM**: Polyolefin based, asphalt free, high strength, reinforced roofing underlayment mechanically attached to sloped roof decks beneath shingles, shakes, metal, and composite roofing.

1. IBC and IRC approved alternate to ASTM D 226 Type I (#15) or Type II (#30) felt.

2. Fire Performance: Class A Fire ASTM E108.

3. Permeability: ASTM E96, < 0.05 perms.

4. Breaking Strength ASTM D5034 MD 164 lb (74 kg).

5. Breaking Strength ASTM D5034 CD 152 lb (69 kg).

6. Water Shower Exposure: ASTM D4869, Pass.

7. Tear Strength: ASTM D4533 MD, 40 lb (18 kg).

8. Tear Strength: ASTM D4533 CD, 37 lb (17 kg).

9. Mullen Burst: ASTM D751, 130 psi.

10. Weight per Square: ASTM D5261, 3.5 lb (1.59 kg).

11. Nominal Thickness: ASTM D1777, 20 mils.

12. Temperature Service Range: -40 °F to 240 °F (-40 °C to 115 °C).

13. Roll Size: 48 inches by 250 feet (1.22 m x 76.2 m), 10 Sq.

CSI SPECS

D. Synthetic Roofing Underlayment - **FT Synthetics GOLD**: Polyolefin based, asphalt free, high strength, reinforced roofing underlayment mechanically attached to sloped roof decks beneath shingles, shakes, slate, tile, metal, and composite roofing to prevent leaks caused by wind driven rain and primary roofing breach.

1. IBC and IRC approved alternate to ASTM D 226 Type I (#15) or Type II (#30) felt.
2. Fire Performance: Class A Fire ASTM E108.
3. Permeability: ASTM E96, < 0.05 perms.
4. Breaking Strength ASTM D5034 MD 120 lb (54 kg).
5. Breaking Strength ASTM D5034 CD 110 lb (50kg).
6. Water Shower Exposure: ASTM D4869, Pass.
7. Tear Strength: ASTM D4533 MD, 35 lb (16 kg).
8. Tear Strength: ASTM D4533 CD, 32 lb (15 kg).
9. Mullen Burst: ASTM D751, 125 psi.
10. Weight per Square: ASTM D5261, 3.2 lb (1.45 kg).
11. Nominal Thickness: ASTM D1777, 16 mils.
12. Temperature Service Range: -40° F to 240° F (-40° C to 115° C).
13. Roll Size: 48 inches by 250 feet (1.22 m x 76.2 m), 10 Sq.

E. Synthetic Roofing Underlayment - **FT Synthetics SILVER**: Polyolefin based, asphalt free, high strength, reinforced roofing underlayment mechanically attached to sloped roof decks beneath shingles, shakes, residential metal, and composite roofing to prevent leaks caused by wind driven rain and primary roofing breach.

1. IBC and IRC approved alternate to ASTM D 226 Type I (#15) felt.
2. Fire Performance: Class A Fire ASTM E108.
3. Permeability: ASTM E96, < 0.05 perms.
4. Breaking Strength ASTM D5034 MD 102 lb (46 kg).
5. Breaking Strength ASTM D5034 CD 96 lb (44 kg)
6. Water Shower Exposure: ASTM D4869, Pass.
7. Tear Strength: ASTM D4533 MD, 25 lb (11 kg).
8. Tear Strength: ASTM D4533 CD, 23 lb (10 kg).
9. Mullen Burst: ASTM D751, 113 psi.
10. Weight per Square: ASTM D5261, 2.2 lb (1.0 kg).
11. Nominal Thickness: ASTM D1777, 12 mils.
12. Temperature Service Range: -40° F to 240° F (-40° C to 115° C).
13. Roll Size: 48 inches by 250 feet (1.22 m x 76.2 m), 10 Sq.

CSI SPECS

F. Synthetic Roofing Underlayment - **FT Synthetics PRO-20**: Polyolefin based, asphalt free, high strength, reinforced roofing underlayment mechanically attached to sloped roof decks beneath shingle roofing to prevent leaks caused by wind driven rain and primary roofing breach.

1. IBC and IRC approved alternate to ASTM D 226 Type I (#15) felt.
2. Fire Performance: Class A Fire ASTM E108.
3. Permeability: ASTM E96, < 0.05 perms.
4. Breaking Strength ASTM D5034 MD 101 lb (46 kg).
5. Breaking Strength ASTM D5034 CD 90.4 lb (44 kg).
6. Water Shower Exposure: ASTM D4869, Pass.
7. Tear Strength: ASTM D4533 MD, 25 lb (11 kg)
8. Tear Strength: ASTM D4533 CD, 23 lb (10 kg)
9. Mullen Burst: ASTM D751, 102 psi.
10. Weight per Square: ASTM D5261, 2.2 lb (1.0 kg).
11. Nominal Thickness: ASTM D1777, 12 mils.
12. Temperature Service Range: -40° F to 240° F (-40° C to 115° C).
13. Roll Size: 42 inches by 286 feet (1.07 m x 87.2 m), 10 Sq.

24 RELATED MATERIALS

- A. Sealant: High quality, asbestos free plastic roofing cement meeting or exceeding the requirements of ASTM D 4586 Type I.
- B. Installed with Plastic or Metal cap nails with either smooth shank or ring shank nails.

PART 3 Execution

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify General Contractor of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Prior to installation ensure surfaces are sufficiently cleaned as per manufacturers requirements.

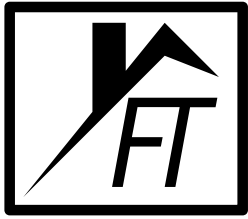
33 INSTALLATION

- A. Follow manufacturer's current installation guidelines and requirements of all applicable code bodies having jurisdiction. In the event of a conflict in installation requirements, the more stringent method of installation will prevail.
- B. Roof Deck: Starting at the lowest point of the roof section, apply one layer of underlayment horizontally over all sections of roof deck not protected by eave or valley membrane and nail in place. Lap horizontal edges at least 4 inches (100 mm). Overlap vertical laps at least 6 inches (150 mm).
- C. Eaves: Install self adhered membrane eaves protection lap ends 6 inches (150mm) side laps 3 inches (75 mm).
- D. Valleys: Install a full width of self adhered membrane centered on valley; lap ends 6 inches (150 mm) and seal. Where open valley construction is specified, install metal flashing over self adhered membrane before roof deck underlayment is installed. Lap underlayment over valley protection at least 6 inches (150 mm).
- E. Vent Pipes and Field Penetrations: Apply a 24 inch (610 mm) square target sheet of self adhered membrane around the penetration. Lap over underlayment beneath and at the sides of the penetration and beneath underlayment above the penetration. Apply sealant to the seam above the penetration.
- F. Sidewalls, Headwalls and Chimneys: Apply self adhered membrane extending at least 8 inches (200 mm) up the wall and 12 inches (305 mm) on to the roof surface. Lap over roof deck protection.
- G. Hips and Ridges: Apply self adhered membrane over the length of the hips and ridges. Where ridge ventilation is specified, remove self adhered membrane from areas where ventilation slots are required prior to installing ridge vent.
- H. Rake Edges: Apply self adhered membrane and underlayment prior to installation of any rake edge flashing. Apply sealant to the edge prior to installation of metal flashing and nail metal edge flashing every 6 inches (150mm).
- I. Skylights: Apply self adhered membrane up the sides of the frame and 12 inches (305 mm) on to the roof surface on all sides, Lap over underlayment beneath and at the sides of the skylight and beneath underlayment above the penetration. Apply sealant to the seam above the skylight. See skylight manufacturer for any additional installation details.

34 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION



HYDRA

Breathable Synthetic Underlayment





HYDRA

Breathable Synthetic Underlayment

FT HYDRA Features and Benefits

FT Synthetics products come with over two decades of research through listening to our customers, engineers, architects, roofing contractors/installers and home owners. FT Synthetics HYDRA is a breathable synthetic roofing underlayment designed to add an extra layer of protection from water penetrating your roof and at the same time help the release of trapped moisture due to poor attic ventilation. HYDRA is high strength, light weight, durable for up to 6 months UV exposure and has a 40 year limited warranty. HYDRA includes our GRIPSPOT™ technology for superior slip resistant walkability during installation. HYDRA is a 100% recyclable product.

- GRIPSPOT™ technology for superior slip resistance
- Durable breathable (20 Perms) three layer construction
- Lighter weight and stronger than traditional #30 felt
- Up to 180 day UV resistance
- Greater coverage per roll than #30 felt
- 100% recyclable water resistant construction
- Wrinkle free and low temperature flexibility for ease of installation
- Meets and exceeds ASTM AC188, D226, D4869, CAN/CSA A123.3
- Intertek Code Compliance CCRR 1028
- Class A ASTM E108 Fire Rating
- LIFETIME limited Warranty

GRIPSPOT™ Technology is your ultimate protection on the roof, working in any weather condition. FT Synthetics has focused its research towards roofer safety and ease of use. FT Synthetics incorporates its patented GRIPSPOT™ technology, with its raised fibrous spots for traction and smooth channels for shedding water, to provide outstanding slip resistance. **HYDRA** is light weight, easy to carry, cool to the touch and pliable under extreme temperatures. **HYDRA** has a wrinkle free surface, lays flat and straight over longer distances (unlike many products in the market which ripple and curve) and stays put with its underside non slip coating. These features combined with its print design result in easier, faster and more accurate installations. **HYDRA** can be used in most types of installations, whether they are commercial or residential. It can be used with metal, wood, and asphalt shingles, slate or concrete tiles. **HYDRA** meets and exceeds required industry standards.



FBC #FL20853



HYDRA

Breathable Synthetic Underlayment

FT HYDRA Technical Data

ROLLS AND PALLET SPECIFICATIONS	
WIDTH PER ROLL	48" / 122 cm
WEIGHT PER ROLL	40 lb / 18 kg
LENGTH PER ROLL	250 ft / 76.2 m
ROLLS PER PALLET (48 X 48)	20
PALLET WEIGHT	850 lbs / 386 kg

TEST & ASTM STANDARD	HYDRA	#30 FELT
Material Composition	Polyolefin	Asphalt
UV Resistance	6 Months	None
Breaking Strength ASTM D 5034 MD	110 lb / 50 kg	NA
Breaking Strength ASTM D 5034 CD	90 lb / 41 kg	NA
Tear Strength ASTM D4533 MD	38 lb / 17 kg	NA
Tear Strength ASTM D4533 CD	372 lb / 15 kg	NA
Water shower Exposure ASTM D 4869	Pass	NA
Permeability ASTM E96	20 Perms	5 Perms
Mullen Burst	80 psi / 552 kpa	NA
Nominal Thickness ASTM D1777	30 mils / 0.76 mm	60 mils
Temperature Range	-40°F to 240°F / (-40°C to 115°C)	
Enhanced Slip Resistant Surface	Excellent	Basic
Warranty	40 Years	None



HYDRA

Breathable Synthetic Underlayment

Installation Instructions:

Caution: Always follow Safety Instruction, Building Codes and Safe Work Practices issues by the local Govt. bodies (e.g. OSHA / WCB)

Use: FT Synthetics® products are a secondary layer protection approved for installation over plywood with proper fasteners on roof slopes 2:12 and greater. Product is a secondary barrier under a primary roofing product such as asphalt shingles, synthetic shingles, metal, tiles, slate, and cedar shakes.

Preparation: Before installing the underlayment ensure that the roof is dry and clear of any debris or any sharp protrusions.

Installation: FT Synthetics underlayment is laid out horizontally with printed side up using 4" horizontal laps and 6" vertical laps. For prolonged exposure where driving rain or strong winds are expected it is recommended to double the overlaps. For low slope applications between 2:12 to 4:12, it is recommended to overlap 50% plus 1".

Fastening: FT Synthetics underlayment should be installed with plastic or metal (ring shank or smooth shank) cap-nails or cap-staples. Un-capped staples or standard roofing nails may be used if the primary roofing material is installed within 48 hours (unless rain or high winds are expected). Use of un-capped fasteners may result in a possibility of blow off or leakage around the fasteners.

Exposure: For short term coverage (48 hours) underlayment can be fastened using every other anchoring position as printed on the product. For extended exposure fasten the product using every anchoring position as printed on the product. All anchoring must be performed flush to the roof, 90 degrees to the roof deck that will hold the material tightly with the plywood. Product has 180 Days UV protection, but it should not be considered a final roofing system. A proper final roofing system should be installed over the product to get the proper protection.

Safety Notification:

FT Synthetics products are designed with the GRIPSPOT™ technology for better skid protection for the roofer but product may become slippery due to high moisture, frost, rain, water, dust, debris or other conditions. Use precautions when working on the roof. Follow all local and federal safety codes when installing any roofing system including FT Synthetics products. Failure to adhere to those procedures may result in serious injury or even death.



HYDRA

Sous-couche de Toiture Respirante

Instructions d'installation :

Avertissement : Suivez toujours les consignes de sécurité, les codes du bâtiment et les pratiques de travail sécuritaires émis par les organismes gouvernementaux locaux (par exemple OSHA / WCB)

Utilisation: Les produits FT Synthetics® sont des couches de protections secondaires approuvées pour l'installation de contreplaqué avec des fixations appropriées sur des pentes de toit 2:12 et plus pentues. Le produit est une barrière secondaire sous un produit de toiture principal comme des bardeaux d'asphalte, synthétiques, de métal, des tuiles, de l'ardoise et des bardeaux de cèdres.

Préparation: Avant d'installer la sous-couche, assurez-vous que le toit soit sec et libre de tout débris ou de toute protubérance tranchante.

Installation: La sous-couche FT Synthetics est étendue horizontalement avec le côté imprimé vers le haut en utilisant des chevauchements horizontaux de 4 po et verticaux de 6 po. Pour une exposition prolongée où de la pluie battante et de grands vents sont attendus, il est recommandé de doubler les chevauchements. Pour les applications sur une pente douce entre 2:12 à 4:12, il est recommandé de chevaucher à 50 % plus 1 po.

Fixations: La sous-couche FT Synthetics doit être installée avec des clous ou des agrafes à capuchon en plastique ou en métal (à tige baguée ou lisse). Des agrafes non couvertes ou des clous à toiture normaux peuvent être utilisés si le matériel de toiture principal est installé en moins de 48 heures (sauf si de la pluie ou des vents sont attendus). Utiliser des fixations non couvertes peut causer des pertes au vent ou des fuites autour des fixations.

Exposition: Pour une couverture à court terme (48 heures), la sous-couche peut être fixée en utilisant toute autre position d'ancrage comme indiqué sur le produit. Pour une exposition prolongée, fixez le produit en utilisant la position d'ancrage comme indiqué sur le produit. Tout ancrage doit être effectué au ras du toit, à 90 degrés par rapport au platelage de toit qui tiendra fermement le matériau avec le contreplaqué. Le produit a une protection UV de 180 jours, mais il ne devrait pas être considéré comme un système de toiture final. Un système de toiture final adéquat doit être installé sur le produit pour obtenir une protection appropriée.

Avis de sécurité :

Les produits FT Synthetics est conçu avec la technologie GRIPSPOT pour une meilleure protection contre le dérapage pour le couvreur, mais il peut devenir glissant à cause de la forte humidité, du gel, de la pluie, de l'eau, de poussières, de débris et d'autres conditions. Utilisez avec précaution lorsque vous travaillez sur le toit. Suivez tous les codes de sécurité locaux et fédéraux lors de l'installation d'un système de couverture de toiture, y compris les produits FT Synthetics. Ne pas respecter ces procédures peut entraîner des blessures graves ou même la mort.



HYDRA

Membrana Sintética Para Techos Transpirable

Instrucciones para la instalación:

Precaución: Siga siempre las instrucciones de seguridad, códigos de construcción y las cuestiones prácticas de trabajo seguras establecidas por el organismo de gobierno local. (Por ejemplo, OSHA / WCB)

Uso: Los productos FT Synthetics® son una capa secundaria de protección aprobada para su instalación sobre madera contrachapada con sujetadores adecuados en pendientes de techo 2:12 y mayores. El producto es una barrera secundaria debajo de un producto primario de techado como tablillas asfálticas, tablillas sintéticas, metal, tejas, pizarras y tejas de cedro.

Preparación: Antes de instalar el recubrimiento inferior, asegúrese de que el techo esté seco y libre de escombros o protuberancias puntiagudas.

Instalación: El recubrimiento inferior FT Synthetics se coloca horizontalmente con la cara impresa mirando hacia arriba usando vueltas horizontales de 4" y vueltas verticales de 6". En caso de exposición prolongada cuando se prevean lluvias o vientos fuertes, se recomienda duplicar las superposiciones. Para aplicaciones con pendientes bajas entre 2:12 y 4:12, se recomienda superponer 50 % más 1".

Fijación: El recubrimiento inferior FT Synthetics debe instalarse con clavos o grapas con tapas de plástico o de metal (caña roscada o caña lisa). Se pueden utilizar clavos estándar de techo o grapas sin tapa si el material de techado primario se instala en un plazo de 48 horas (a menos que se prevean lluvias o vientos fuertes). El uso de sujetadores sin tapa puede dar lugar a la posibilidad de que se produzcan fugas alrededor de los sujetadores.

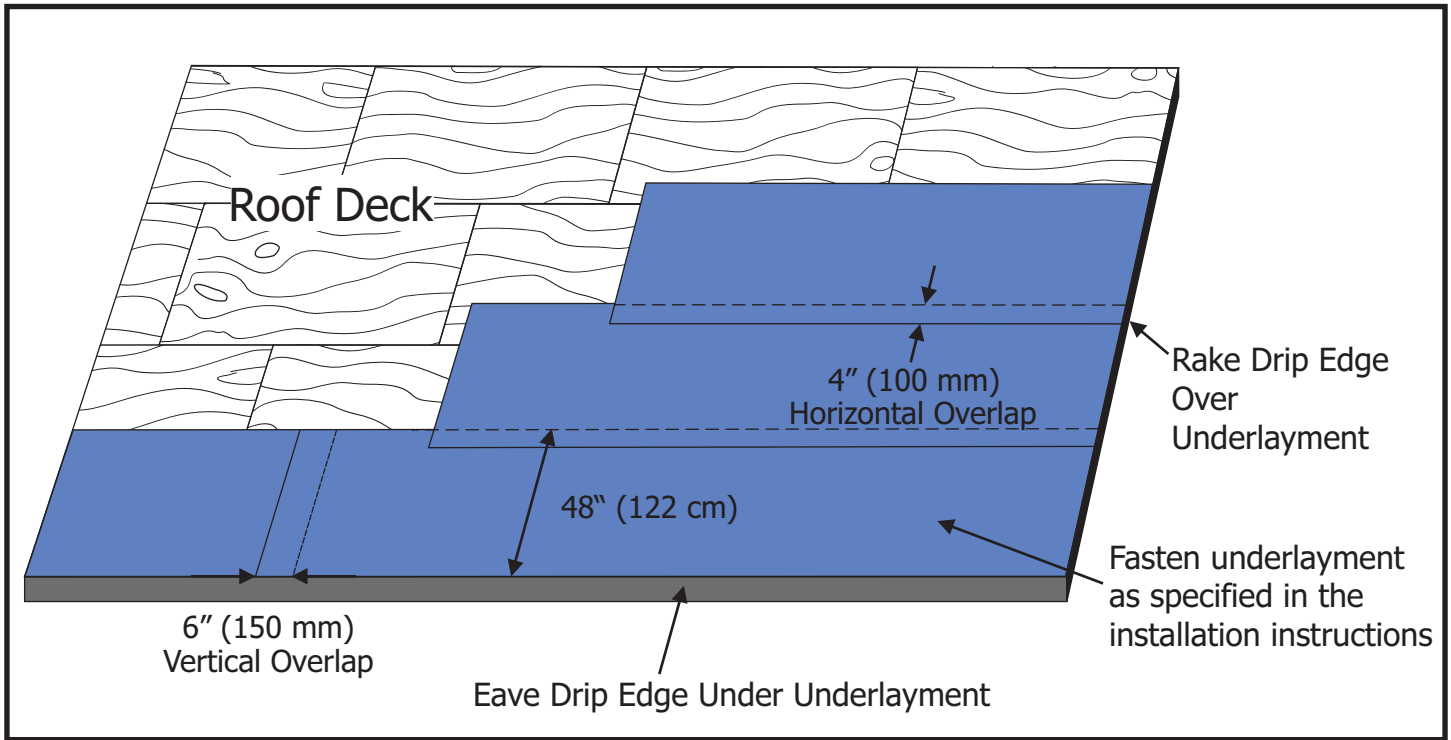
Exposición: Para una cobertura a corto plazo (48 horas), el recubrimiento inferior puede fijarse utilizando cualquier otra posición de anclaje impresa en el producto. Para una exposición prolongada, fije el producto utilizando cada posición de anclaje impresa en el producto. Todos los anclajes se deben realizar a ras del techo, a 90 grados de la cubierta del techo que sostendrá el material firmemente con la madera contrachapada. El producto cuenta con 180 días de protección UV, pero no se debe considerar como un sistema definitivo de techado. Se debe instalar un sistema definitivo de techado adecuado sobre el producto para obtener la protección adecuada.

Notificación de seguridad:

Los productos FT Synthetics están diseñados con la tecnología GRIPSPOT que le brinda al techador una mejor protección de deslizamiento. No obstante, el producto puede ser resbaloso debido a la alta humedad, heladas, lluvia, agua, polvo, escombros u otras condiciones. Utilice las precauciones necesarias cuando trabaje en el techo. Siga todos los códigos de seguridad locales y federales para la instalación de cualquier sistema de techado incluyendo los productos FT Synthetics. El incumplimiento de los procedimientos puede resultar en lesiones graves o incluso la muerte.

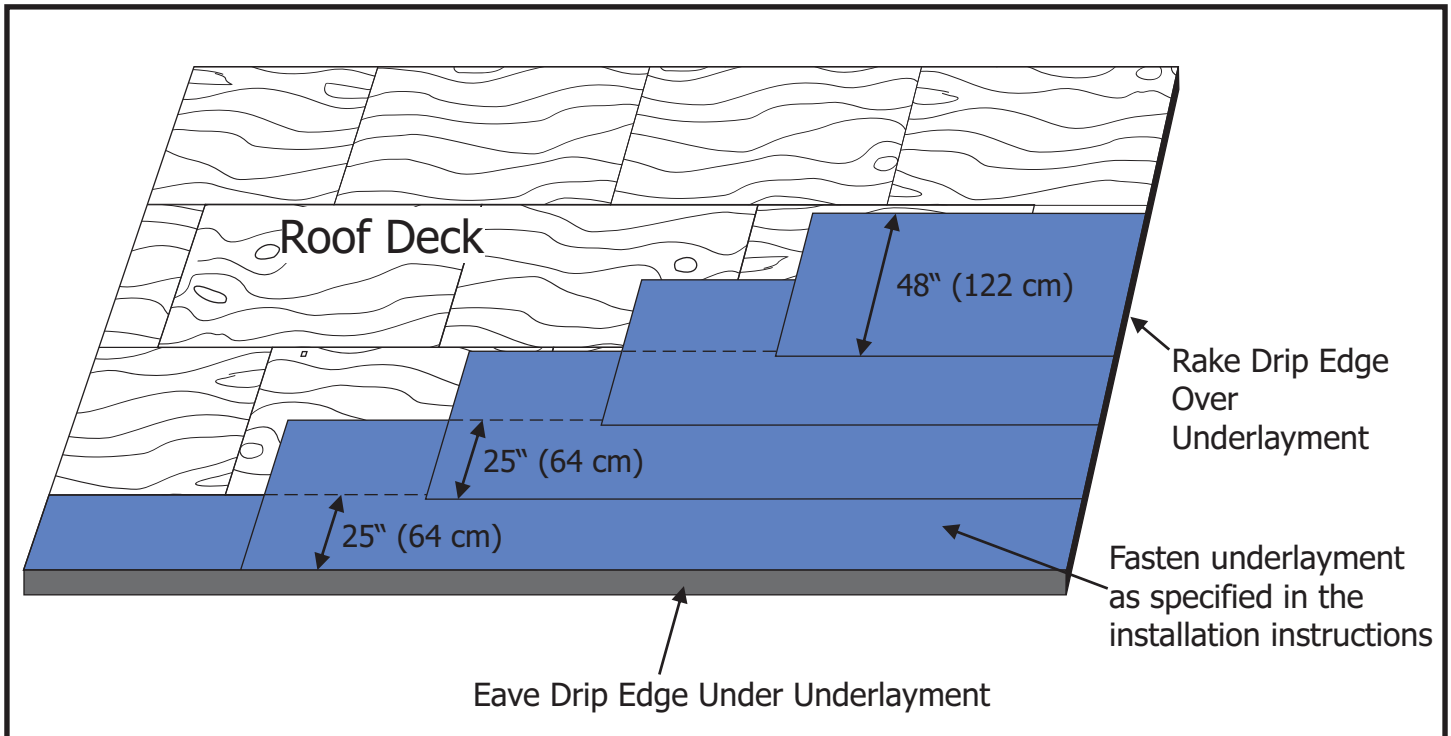
Single Layer Application of FT HYDRA

For slopes greater than 4:12 FT HYDRA should be installed horizontally starting from the bottom of the roof with 4 inch overlaps working up the roof.



Double Layer Application of FT HYDRA

For slopes 2:12 to 4:12 FT HYDRA should be installed horizontally starting from the bottom of the roof with 25 inch overlaps working up the roof.



SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: FT Synthetics Inc.
Address: Unit 1-13120 76th Avenue
Surrey, B.C., Canada
V3W 2V6
Toll Free: 1-844-353-9839
Phone Number: 604-594-3439
Website: www.ftsyn.com
Product Name: FT Synthetics HYDRA
Chemical Family: N/A
Other Information: OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Material Safety Data Sheets do not apply to this product. This product is excluded as an article. Information on potential hazards associated with product fabrication and/or installation are discussed in this datasheet.

SECTION 2. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: This product has no known adverse effect on human health. Additives in this product do not present a respiration hazard / Contact Hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled. No hazardous ingredients by OSHA and WHMIS criteria

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Ingredient	Conc. (%)	CAS No.
Polypropylene	75-80	9003-07-0
Polyethylene	0-5	9002-88-4
Breathable Polymer	7	Proprietary
Polyethylene based color Master batch	1	9002-88-4

SECTION 4. FIRST AID MEASURES

General advice: No hazards which require special first aid measures

SECTION 5. FIRE-FIGHTING MEASURES

Flammable Properties

Flash point: not applicable
Thermal decomposition: ca. > 200 °C (> 392 °F)

Fire and Explosion Hazard: Burning is accompanied by melting and dripping which may cause the fire to spread.

Firefighting Instructions: Hazardous combustion products Carbon monoxide Carbon dioxide (CO₂).
Wear self-contained breathing apparatus and protective suit. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SAFETY DATA SHEET (Continued)

SECTION 6. ACCIDENTAL RELEASE MEASURES

Note: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Cleanup not applicable

SECTION 7. HANDLING AND STORAGE

Handling Procedures: When handling uncontained material, use personal protective equipment as described in Section 8 of this SDS.

Storage Procedures: Store material in accordance with instructions on the product packaging, if any. Material should be kept clean, dry, and in original packaging. Keep this product away from heat, sparks, ignition sources, and open flames in accordance with applicable laws and regulations.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Primary Route of Exposure: Skin Contact

Exposure Effects: None Known

Spill Procedure: N/A

Disposal Procedure: Follow federal, provincial/state and municipal regulations for waste disposal.

Gloves: Recommend to wear protective gloves when handling these products.

Eye Protection: Use safety glasses when needed

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A

Specific Gravity: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Solubility in Water: Insoluble

Appearance: Sheet Material

Odor: Odorless

Melting Point: 160-177 CSECTION

SECTION 10. STABILITY AND REACTIVITY

Hazardous decomposition: Carbon monoxide, Carbon dioxide products

SECTION 11. TOXICOLOGICAL INFORMATION

Further information: This product has no known adverse effect on human health.

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information: This product has no known eco-toxicological effects.

SAFETY DATA SHEET (Continued)

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of waste material in accordance with Federal, State, and Local environmental regulations. Where possible recycling is preferred to disposal or incineration

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

International Regulations: These products are not considered articles per international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

U.S. Federal Regulations:

TSCA: None

CERCLA: None

SARA

Section 302: None of the product components are listed under this section

Section 311/312: None of the product components are listed under this section

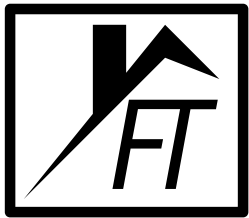
Section 313: None of the product components are listed under this section

State Regulations: None

SECTION 16. OTHER INFORMATION

Date of Preparation: Oct 23, 2017

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



PLATINUM HT-SA

High Temperature - Self Adhering Underlayment





PLATINUM HT-SA

Self Adhering Synthetic Roofing Underlayment

FT PLATINUM HT-SA Features and Benefits

FT Synthetics **PLATINUM HT-SA** is a self adhering peel and stick roofing underlayment that combines the superior slip resistant GRIPSPOT technology developed by FT Synthetics with a high strength, high temperature modified rubberized asphalt backing that has both low temperature (40°F/4.4°C) deck adhesion and high temperature flow stability (230°F/115°C). In addition **PLATINUM HT-SA** has a split release silicone treated liner for ease of installation and a synthetic construction to inhibit mold growth.

PLATINUM HT-SA provides roof deck protection from wind driven rain, standing water, snow, and ice dams. It can be used in most types on installations whether they are commercial or residential. It can be used under metal, wood, asphalt shingles, slate or concrete tiles. **PLATINUM HT-SA** meets and exceeds required industry standards.

- GRIPSPOT™ technology for superior slip resistance
- Up to 180 day UV resistance
- Silicone treated split release liner for ease of installation
- Synthetic construction to inhibit mold growth
- High temperature resistance to 240° F (115° C)
- Deck adhesion at 40° F (4.4° C)
- All weather performance
- Class A ASTM E108 Fire Rating
- LIFETIME limited Warranty
- Meets and exceeds ASTM D1970

GRIPSPOT™ Technology is your ultimate protection on the roof, working in any weather condition. FT Synthetics has focused its research towards roofer safety and ease of use. FT Synthetics incorporates its patented GRIPSPOT™ technology, with its raised fibrous spots for traction and smooth channels for shedding water, to provide outstanding slip resistance. .

PLATINUM HT-SA can be used in most types of installations, whether they are commercial or residential. It can be used with wood, asphalt & synthetic shingles and residential metal roofing. **PLATINUM HT-SA** meets and exceeds required industry standards.



FBC #FL23090



PLATINUM HT-SA

Self Adhering Synthetic Roofing Underlayment

FT PLATINUM HT-SA Technical Data

ROLLS AND PALLET SPECIFICATIONS	
WIDTH PER ROLL	36" / 91.4 cm
WEIGHT PER ROLL	45.0 lb / 20.0 kg
LENGTH PER ROLL	67 ft / 20.4 m
ROLLS PER PALLET (44 X 44)	25
PALLET WEIGHT	1050 lbs / 476 kg

TEST & PROPERTIES	ASTM STANDARD	TYPICAL VALUES
Color		Blue
Surface		GRIPSPOT™ slip resistant
Release Liner		Silicone split release liner
Nail sealability	ASTM D1970	Pass
Permeability	ASTM E96	0.10 Perms
Minimum thickness	ASTM D5147	41 mils /1.04 mm
Tensile Strength MD	ASTM D1970	128.1 lb / 58.1 kg
Tensile Strength CD	ASTM D1970	106.9 lb /48.5 kg
Tear Resistance MD	ASTM D1970	70.1 lb / 31.8 kg
Tear Resistance CD	ASTM D1970	60.2 lb /27.3 kg
Low Temperature Flexibility	ICC AC 48	Pass
Adhesion to plywood	ASTM D903	4 lb/in (0.9kN/m)
Thermal Stability	ASTM D1970	115° C (240° F)
Installation Temperature		40°F (5°C) and above
UV Resistance		6 Months
Warranty		40 Years



PLATINUM HT-SA

Membrana Sintética Para Techos

Instrucciones para la instalación:

Precaución: Siga siempre las instrucciones de seguridad, códigos de construcción y las cuestiones prácticas de trabajo seguras establecidas por el organismo de gobierno local. (Por ejemplo, OSHA / WCB)

Para los mejores resultados, **PLATINUM HT-SA** debe instalarse sobre una plataforma seca cuando la temperatura del aire, membrana y sustrato exceda los 40°F (4,4°C).

PLATINUM HT-SA debe colocarse horizontalmente (paralelo) al alero con el lado impreso hacia arriba, usando pasadas horizontales de 3" y pasadas verticales de 6".

Trabaje siempre desde el punto más bajo del techo hasta el punto más alto. Aplique la membrana en valles antes de aplicarla a los aleros.

Corte **PLATINUM HT-SA** en longitudes manejables y posícelo paralelamente al borde del techo. Pele hacia atrás un lado de la lámina de liberación dividida aproximadamente 4 pulgadas (10 cm) y luego aplíquelo a la plataforma del techo de la forma en la que fue posicionado sobre la plataforma del techo. Continúe pelando hacia atrás un lado de la lámina de liberación dividida. Presione hacia abajo sobre **PLATINUM HT-SA** con un rodillo de goma pequeño para aumentar la adhesión a la plataforma del techo. Pele hacia atrás la mitad restante de revestimiento de liberación dividida y presione sobre el **PLATINUM HT-SA** nuevamente para que se adhiera a la plataforma del techo usando un rodillo pequeño para mejorar la adhesión.

Para instalación en el alero, el **PLATINUM HT-SA** debe aplicarse sobre el borde de goteo de metal del alero. No doble el **PLATINUM HT-SA** sobre el borde del techo a menos de que el borde sea subsiguientemente cubierto con un borde de goteo o algún otro material de borde. Se recomienda que el **PLATINUM HT-SA** se extienda desde el alero hasta el techo hasta un punto 24" hacia adentro de la pared externa. Esto debe estar sobre la línea máxima de acumulación de hielo en la mayoría de las áreas. Consulte su código de construcción local para ver requerimientos específicos.

Para elevaciones más altas, fuertes vientos o lluvia venteadas se recomienda cubrir la plataforma entera del techo con **PLATINUM HT-SA**.

Notificación de seguridad:

Los productos FT Synthetics están diseñados con la tecnología GRIPSPOT que le brinda al techador una mejor protección de deslizamiento. No obstante, el producto puede ser resbaloso debido a la alta humedad, heladas, lluvia, agua, polvo, escombros u otras condiciones. Utilice las precauciones necesarias cuando trabaje en el techo. Siga todos los códigos de seguridad locales y federales para la instalación de cualquier sistema de techado incluyendo los productos FT Synthetics. El incumplimiento de los procedimientos puede resultar en lesiones graves o incluso la muerte.



PLATINUM HT-SA

Self Adhering Synthetic Roofing Underlayment

Installation Instructions:

Caution: Always follow Safety Instruction, Building Codes and Safe Work Practices issues by the local Govt. bodies (e.g. OSHA / WCB)

PLATINUM HT-SA must be covered by a primary roof (Asphalt & Synthetic Shingles, Metal Roofing, Tiles, Slate, and Cedar Shakes) within 180 days. For best results **HT-SA** should be installed on a dry deck when the air, membrane, and substrate temperature is over 40°F (4.4°C). Priming is not required for attaching to wood deck when the temperature is above 40°F. Concrete and masonry decks should be primed with a solvent or a water based primer that meets ASTM D41 for asphalt based self-adhesive membranes.

For cold weather applications below 40°F (4.4°C) a primer should be used and the laps blind nailed. Blind nail with 3/8" head roofing nails of 1" or longer in the 3" over lap area.

HT-SA is recommended for roof slope applications 2:12 and above. For steep slope applications (6:12 or greater) or when installing at temperatures greater than 100°F (38°C) it is recommended to blind nail the overlap area as instructed above for cold weather applications.

HT-SA is to be laid out horizontally (parallel) to the eave with the printed side up, using 3" side laps and 6" end laps.

HT-SA may also be installed vertically. For vertical installation anchor with 3/8" head roofing nails along the upper most edge 3 inches down with 6 equally spaced nails across the 36" width. Ensure roofing nails are perpendicular to the roof deck so that the head lays flat and seals well to the top surface of the **HT-SA** using 3" side laps and 6" end laps.

Always work from the low point to the high point of the roof. Apply the membrane in valleys before the membrane is applied to the eaves.

Cut **HT-SA** to manageable lengths and position parallel to the edge of the roof. Peel back one side of the split release sheet approximately 4 in (10 cm) then apply as positioned to the roof deck. Continue peeling back one side of the split release sheet. Press down on **HT-SA** with a small rubber roller to increase adhesion to the roof deck. Peel back the remaining half of the split release liner and press down on the **HT-SA** to adhere to the roof deck again using a small roller to improve adhesion.

For eave installation **HT-SA** should be applied over the metal drip edge at the eave. Do not fold **HT-SA** over the roof edge unless the edge is subsequently covered over by a drip edge or other flashing material. It is recommended that **HT-SA** extend from the eave up the roof to a point 24" inside the exterior wall. This should be above the maximum ice dam buildup line in most areas. Consult your local building code for specific requirements.

For high elevation, high wind or wind driven rain it is recommended to cover the entire roof deck with **HT-SA**.

Safety Notification:

FT Synthetics products are designed with the GRIPSPOT™ technology for better skid protection for the roofer but product may become slippery due to high moisture, frost, rain, water, dust, debris or other conditions. Use precautions when working on the roof. Follow all local and federal safety codes when installing any roofing system including FT Synthetics products. Failure to adhere to those procedures may result in serious injury or even death.



PLATINUM HT-SA

Membrane auto-adhésive – Haute température

Directives d'installation

Attention : Suivez toujours les directives de sécurité, les codes du bâtiment et les méthodes de travail sécuritaires émises par les autorités locales (par exemple OSHA / CNESST)

La sous-couche **PLATINUM HT-SA** doit être recouverte d'un revêtement de toit (bardeaux d'asphalte ou synthétiques, toiture métallique, tuiles, ardoises ou bardeaux de cèdre) dans les 180 jours. Pour de meilleurs résultats, la **HT-SA** doit être installée sur une surface sèche lorsque la température de l'air, de la membrane et du substrat est supérieure à 4,4 °C (40 °F). La pose d'un apprêt n'est pas nécessaire pour fixer la sous-couche à une toiture de bois lorsque la température est supérieure à 40°F. Les toitures en béton et en maçonnerie doivent être préparées avec une couche d'apprêt à base de solvant ou d'eau qui répond à la norme ASTM D41 pour les membranes autocollantes à base de bitume.

Pour les applications par temps froid en dessous de 4,4 °C (40 °F) un apprêt doit être utilisé et le clouage des chevauchements doit être dissimulé. Le clouage doit être fait avec des clous à toiture de 3/8 po de tête et de 1 po ou plus de longueur dans les chevauchements de 3 po.

La **HT-SA** est recommandée pour les applications avec une pente de toit de 2:12 et plus. Pour les toits à forte pente (6:12 ou plus) ou lors de l'installation à des températures supérieures à 38 °C (100 °F) il est recommandé d'utiliser un clouage dissimulé sur la zone de chevauchement comme indiqué ci-dessus pour les applications par temps froid.

La **HT-SA** doit être installée à l'horizontale (parallèle) à l'avant-toit, face imprimée sur le dessus, avec des chevauchements latéraux de 3 po et d'extrémité de 6 po.

La **HT-SA** peut également être installée verticalement. Pour une installation verticale, clouez avec des clous à toiture de 3/8 po de tête le long de la partie la plus haute de 3 pouces vers le bas en utilisant 6 clous espacés de façon égale sur toute la largeur de 36 po. Assurez-vous que les clous à toiture soient perpendiculaires à la toiture pour que la tête repose à plat et scelle correctement la surface supérieure de la **HT-SA** en gardant un chevauchement de 3 po sur les côtés et de 6 po sur les extrémités.

Installez toujours du point le plus bas vers le point le plus haut de la toiture. Appliquez la membrane dans les vallées avant de l'appliquer sur l'avant-toit.

Coupez la **HT-SA** en longueurs raisonnables et placez-les en parallèle avec le bord du toit. Retirez l'endos de la feuille du côté protection sur environ 10 cm (4 po), puis appliquez tel que positionné à la toiture. Continuez à retirer un côté de la feuille de protection. Appuyez sur la **HT-SA** avec un petit rouleau en caoutchouc pour augmenter l'adhérence à la toiture. Pelez la moitié restante de la membrane de protection et appuyez vers le bas sur la **HT-SA** pour l'adhérer à la toiture en utilisant un petit rouleau pour améliorer l'adhérence.

Pour installer sur l'avant-toit, la **HT-SA** devrait être appliquée par-dessus le larmier métallique de ce dernier. Ne repliez pas la **HT-SA** sur le bord du toit, sauf si le bord est ensuite recouvert par un larmier ou d'autres matériaux de solin. Il est recommandé que la **HT-SA** soit étendue de l'avant-toit en remontant sur la toiture jusqu'à un point à 60 cm (24 po) à l'intérieur d'un mur extérieur. Cela devrait être au-dessus de la ligne d'accumulation de glace maximale dans la plupart des régions. Consultez votre code du bâtiment local pour des besoins spécifiques.

Pour les endroits à haute altitude, sujets à de forts vents ou à de la pluie poussée par le vent, il est recommandé de couvrir l'ensemble de la toiture avec la sous-couche **HT-SA**.

Avis de sécurité :

Les produits FT Synthetics sont conçus avec la technologie GRIPSPOT^{MC} pour une meilleure protection contre le glissement du couvreur, mais les produits peuvent devenir glissants en raison de la forte humidité, du gel, de la pluie, de l'eau, de la poussière, de débris ou d'autres conditions. Prenez garde lorsque vous travaillez sur le toit. Suivez tous les codes de sécurité locaux et fédéraux lors de l'installation d'un recouvrement de toiture y compris les produits FT Synthetics. Le non-respect de ces procédures peut entraîner des blessures graves ou même la mort.

SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: FT Synthetics Inc.
Address: Unit 1-13120 76th Avenue
 Surrey, B.C., Canada
 V3W 2V6
Toll Free: 1-844-353-9839
Phone Number: 604-594-3439
Website: www.ftsyn.com
Product Name: FT Synthetics PLATINUM HT-SA
Chemical Family: N/A
Other Information: OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Material Safety Data Sheets do not apply to this product. This product is excluded as an article. Information on potential hazards associated with product fabrication and/or installation are discussed in this datasheet.

SECTION 2. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: Bitumen membrane. Asphalt Odour. Under normal use, this product is not expected to create any health or environmental hazard. Inhalation of dust or asphalt fumes can cause respiratory irritation and/or congestion.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Ingredient	Conc. (%)	CAS No.
Petroleum Asphalt	>50	8052-42-4
Styrene Butadiene Copolymer	<10	9002-88-4
Calcium Carbonate	<25	471-34-1
Polypropylene	<20	9003-07-0

SECTION 4. FIRST AID MEASURES

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact: Wash skin with soap and water.
Inhalation: Remove to fresh air.
Ingestion: The ingestion of this product is not very likely to occur.

SAFETY DATA SHEET (Continued)

SECTION 5. FIRE-FIGHTING MEASURES

Flammable Properties

Flash point: not applicable
Thermal decomposition: ca. > 200 °C (> 392 °F)

Fire and Explosion Hazard: Burning is accompanied by melting and dripping which may cause the fire to spread.
Hazardous combustion products Carbon monoxide Carbon dioxide (CO₂).

Firefighting Instructions: Wear self-contained breathing apparatus and protective suit. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Note: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Cleanup not applicable

SECTION 7. HANDLING AND STORAGE

Handling Procedures: When handling uncontained material, use personal protective equipment as described in Section 8 of this SDS.

Storage Procedures: Store material in accordance with instructions on the product packaging, if any. Material should be kept clean, dry, and in original packaging. Keep this product away from heat, sparks, ignition sources, and open flames in accordance with applicable laws and regulations.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Primary Route of Exposure: Skin Contact
Exposure Effects: Repeated or prolonged contact can cause irritation
Spill Procedure: N/A
Disposal Procedure: Follow federal, provincial/state and municipal regulations for waste disposal.
Gloves: Recommend to wear protective gloves when handling these products.
Eye Protection: Use safety glasses when needed

SAFETY DATA SHEET (Continued)**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point:	N/A
Specific Gravity:	N/A
Vapor Pressure:	N/A
Evaporation Rate:	N/A
Solubility in Water:	Insoluble
Appearance:	Sheet Material
Odor:	Mild Petroleum Odor
Melting Point:	N/A

SECTION 10. STABILITY AND REACTIVITY

Hazardous decomposition: Carbon monoxide, Carbon dioxide products

SECTION 11. TOXICOLOGICAL INFORMATION

Further information: No information is available.

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information: No data is available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of waste material in accordance with Federal, State, and Local environmental regulations. Where possible recycling is preferred to disposal or incineration

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SAFETY DATA SHEET (Continued)

SECTION 15. REGULATORY INFORMATION

International Regulations: These products are not considered articles per international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

U.S. Federal Regulations:

TSCA: None

CERCLA: None

SARA

Section 302: None of the product components are listed under this section

Section 311/312: None of the product components are listed under this section

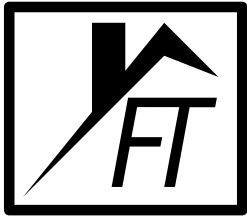
Section 313: None of the product components are listed under this section

State Regulations: None

SECTION 16. OTHER INFORMATION

Date of Preparation: Sept 15,2016

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



PLATINUM

A New Generation of Underlayments





PLATINUM

Synthetic Roofing Underlayment

FT PLATINUM Features and Benefits

FT Synthetics products come with over two decades of research through listening to our customers, engineers, architects, roofing contractors/installers and home owners. Our products provide ultimate high performance and protection for the installer and your home. Our products are fully synthetic, 100% recyclable, offer superior grip protection, excellent UV resistance, are the most pliable and of course are easy to use. They are light weight but durable and provide the best protection 5 X more coverage per roll as compared to #30 felt.

- GRIPSPOT™ technology for superior slip resistance
- Lighter weight and stronger than traditional #30 felt
- Up to 180 day UV resistance
- Greater coverage per roll than #30 felt
- 100% recyclable water resistant polyolefin construction
- Wrinkle free and low temperature flexibility for ease of installation
- Meets and exceeds ASTM AC188, D226, D4869, CAN/CSA A123.3
- Intertek Code Compliance CCRR 1028
- Class A ASTM E108 Fire Rating
- LIFETIME limited Warranty

GRIPSPOT™ Technology is your ultimate protection on the roof, working in any weather condition. FT Synthetics has focused its research towards roofer safety and ease of use. FT Synthetics incorporates its patented GRIPSPOT™ technology, with its raised fibrous spots for traction and smooth channels for shedding water, to provide outstanding slip resistance. **PLATINUM** is light weight, easy to carry, cool to the touch and pliable under extreme temperatures. **PLATINUM** has a wrinkle free surface, lays flat and straight over longer distances (unlike many products in the market which ripple and curve) and stays put with its underside non slip coating. All of these features combined with its print design result in easier, faster and more accurate installations. **PLATINUM** can be used in most types of installations, whether they are commercial or residential. It can be used with metal, wood, and asphalt shingles, slate or concrete tiles. **PLATINUM** meets and exceeds required industry standards.



FBC #FL20853



PLATINUM

Synthetic Roofing Underlayment

FT PLATINUM Technical Data

ROLLS AND PALLET SPECIFICATIONS	
WIDTH PER ROLL	48" / 122 cm
WEIGHT PER ROLL	35.0 lb / 15.9 kg
LENGTH PER ROLL	250 ft / 76.2 m
ROLLS PER PALLET (48 X 48)	36
PALLET WEIGHT	1330lbs / 603 kg

TEST & ASTM STANDARD	PLATINUM	#30 FELT
Material Composition	Polyolefin	Asphalt
UV Resistance	6 Months	None
Breaking Strength ASTM D 5034 MD	164 lb / 74 kg	NA
Breaking Strength ASTM D 5034 CD	152 lb / 69 kg	NA
Tear Strength ASTM D4533 MD	40 lb / 18 kg	NA
Tear Strength ASTM D4533 CD	37 lb / 17 kg	NA
Water shower Exposure ASTM D 4869	Pass	NA
Permeability ASTM E96	<0.05 Perms	1.75 Perms
Mullen Burst	156 psi / 1076 kpa	NA
Nominal Thickness ASTM D1777	20 mils / 0.51 mm	60 mils
Temperature Range	-40°F to 240°F / (-40°C to 115°C)	
Enhanced Slip Resistant Surface	Excellent	Basic
Warranty	40 Years	None



PLATINUM

Synthetic Roofing Underlayment

Installation Instructions:

Caution: Always follow Safety Instruction, Building Codes and Safe Work Practices issues by the local Govt. bodies (e.g. OSHA / WCB)

Use: FT Synthetics® products are a secondary layer protection approved for installation over plywood with proper fasteners on roof slopes 2:12 and greater. FT Synthetics underlayment is an air, vapor and water barrier with <1 Perm and therefore should be installed above a properly ventilated space. Product is a secondary barrier under a primary roofing product such as asphalt shingles, synthetic shingles, metal, tiles, slate, and cedar shakes.

Preparation: Before installing the underlayment ensure that the roof is dry and clear of any debris or any sharp protrusions.

Installation: FT Synthetics underlayment is laid out horizontally with printed side up using 4" horizontal laps and 6" vertical laps. For prolonged exposure where driving rain or strong winds are expected it is recommended to double the overlaps. For low slope applications between 2:12 to 4:12, it is recommended to overlap 50% plus 1".

Fastening: FT Synthetics underlayment should be installed with plastic or metal (ring shank or smooth shank) cap-nails or cap-staples. Un-capped staples or standard roofing nails may be used if the primary roofing material is installed within 48 hours (unless rain or high winds are expected). Use of un-capped fasteners may result in a possibility of blow off or leakage around the fasteners.

Exposure: For short term coverage (48 hours) underlayment can be fastened using every other anchoring position as printed on the product. For extended exposure fasten the product using every anchoring position as printed on the product. All anchoring must be performed flush to the roof, 90 degrees to the roof deck that will hold the material tightly with the plywood. Product has 180 Days UV protection, but it should not be considered a final roofing system. A proper final roofing system should be installed over the product to get the proper protection.

Safety Notification:

FT Synthetics products are designed with the GRIPSPOT™ technology for better skid protection for the roofer but product may become slippery due to high moisture, frost, rain, water, dust, debris or other conditions. Use precautions when working on the roof. Follow all local and federal safety codes when installing any roofing system including FT Synthetics products. Failure to adhere to those procedures may result in serious injury or even death.



PLATINUM

Membrane Synthétique Pour Toiture

Instructions d'installation :

Avertissement : Suivez toujours les consignes de sécurité, les codes du bâtiment et les pratiques de travail sécuritaires émis par les organismes gouvernementaux locaux (par exemple OSHA / WCB)

Utilisation: Les produits FT Synthetics® sont des couches de protections secondaires approuvées pour l'installation de contreplaqué avec des fixations appropriées sur des pentes de toit 2:12 et plus pentues. La sous-couche FT Synthetics est une barrière contre l'air, la vapeur et l'eau avec une perméabilité <1 qui par conséquent doit être installée par-dessus un espace adéquatement aéré. Le produit est une barrière secondaire sous un produit de toiture principal comme des bardeaux d'asphalte, synthétiques, de métal, des tuiles, de l'ardoise et des bardeaux de cèdres.

Préparation: Avant d'installer la sous-couche, assurez-vous que le toit soit sec et libre de tout débris ou de toute protubérance tranchante.

Installation: La sous-couche FT Synthetics est étendue horizontalement avec le côté imprimé vers le haut en utilisant des chevauchements horizontaux de 4 po et verticaux de 6 po. Pour une exposition prolongée où de la pluie battante et de grands vents sont attendus, il est recommandé de doubler les chevauchements. Pour les applications sur une pente douce entre 2:12 à 4:12, il est recommandé de chevaucher à 50 % plus 1 po.

Fixations: La sous-couche FT Synthetics doit être installée avec des clous ou des agrafes à capuchon en plastique ou en métal (à tige baguée ou lisse). Des agrafes non couvertes ou des clous à toiture normaux peuvent être utilisés si le matériel de toiture principal est installé en moins de 48 heures (sauf si de la pluie ou des vents sont attendus). Utiliser des fixations non couvertes peut causer des pertes au vent ou des fuites autour des fixations.

Exposition: Pour une couverture à court terme (48 heures), la sous-couche peut être fixée en utilisant toute autre position d'ancrage comme indiqué sur le produit. Pour une exposition prolongée, fixez le produit en utilisant la position d'ancrage comme indiqué sur le produit. Tout ancrage doit être effectué au ras du toit, à 90 degrés par rapport au platelage de toit qui tiendra fermement le matériau avec le contreplaqué. Le produit a une protection UV de 180 jours, mais il ne devrait pas être considéré comme un système de toiture final. Un système de toiture final adéquat doit être installé sur le produit pour obtenir une protection appropriée.

Avis de sécurité :

Les produits FT Synthetics est conçu avec la technologie GRIPSPOT pour une meilleure protection contre le dérapage pour le couvreur, mais il peut devenir glissant à cause de la forte humidité, du gel, de la pluie, de l'eau, de poussières, de débris et d'autres conditions. Utilisez avec précaution lorsque vous travaillez sur le toit. Suivez tous les codes de sécurité locaux et fédéraux lors de l'installation d'un système de couverture de toiture, y compris les produits FT Synthetics. Ne pas respecter ces procédures peut entraîner des blessures graves ou même la mort.



PLATINUM

Membrana Sintética Para Techos

Instrucciones para la instalación:

Precaución: Siga siempre las instrucciones de seguridad, códigos de construcción y las cuestiones prácticas de trabajo seguras establecidas por el organismo de gobierno local. (Por ejemplo, OSHA / WCB)

Uso: Los productos FT Synthetics® son una capa secundaria de protección aprobada para su instalación sobre madera contrachapada con sujetadores adecuados en pendientes de techo 2:12 y mayores. El recubrimiento inferior FT Synthetics es una barrera de aire, vapor y agua con Perm >1 y, por lo tanto, debe instalarse sobre un espacio con ventilación adecuada. El producto es una barrera secundaria debajo de un producto primario de techado como tablillas asfálticas, tablillas sintéticas, metal, tejas, pizarras y tejas de cedro.

Preparación: Antes de instalar el recubrimiento inferior, asegúrese de que el techo esté seco y libre de escombros o protuberancias puntiagudas.

Instalación: El recubrimiento inferior FT Synthetics se coloca horizontalmente con la cara impresa mirando hacia arriba usando vueltas horizontales de 4" y vueltas verticales de 6". En caso de exposición prolongada cuando se prevean lluvias o vientos fuertes, se recomienda duplicar las superposiciones. Para aplicaciones con pendientes bajas entre 2:12 y 4:12, se recomienda superponer 50 % más 1".

Fijación: El recubrimiento inferior FT Synthetics debe instalarse con clavos o grapas con tapas de plástico o de metal (caña roscada o caña lisa). Se pueden utilizar clavos estándar de techo o grapas sin tapa si el material de techado primario se instala en un plazo de 48 horas (a menos que se prevean lluvias o vientos fuertes). El uso de sujetadores sin tapa puede dar lugar a la posibilidad de que se produzcan fugas alrededor de los sujetadores.

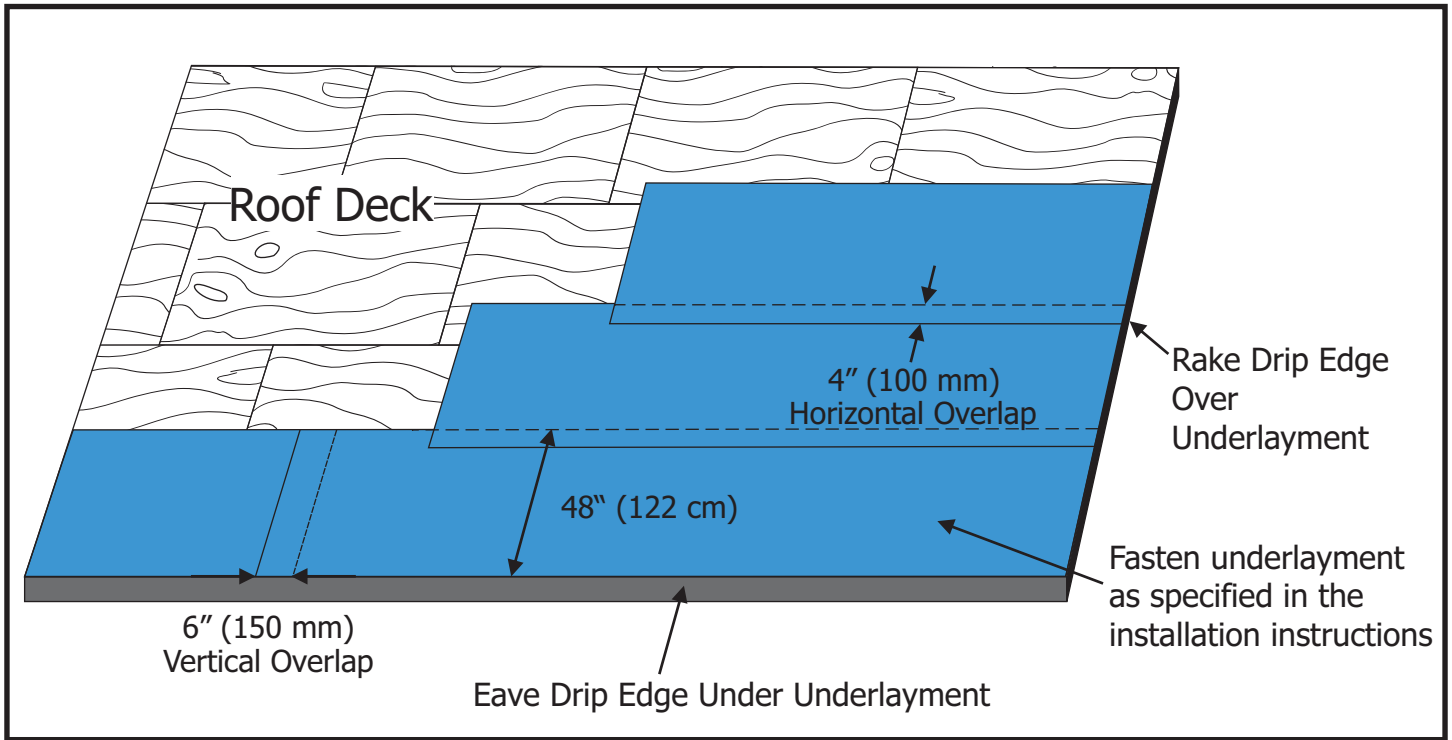
Exposición: Para una cobertura a corto plazo (48 horas), el recubrimiento inferior puede fijarse utilizando cualquier otra posición de anclaje impresa en el producto. Para una exposición prolongada, fije el producto utilizando cada posición de anclaje impresa en el producto. Todos los anclajes se deben realizar a ras del techo, a 90 grados de la cubierta del techo que sostendrá el material firmemente con la madera contrachapada. El producto cuenta con 180 días de protección UV, pero no se debe considerar como un sistema definitivo de techado. Se debe instalar un sistema definitivo de techado adecuado sobre el producto para obtener la protección adecuada.

Notificación de seguridad:

Los productos FT Synthetics están diseñados con la tecnología GRIPSPOT que le brinda al techador una mejor protección de deslizamiento. No obstante, el producto puede ser resbaloso debido a la alta humedad, heladas, lluvia, agua, polvo, escombros u otras condiciones. Utilice las precauciones necesarias cuando trabaje en el techo. Siga todos los códigos de seguridad locales y federales para la instalación de cualquier sistema de techado incluyendo los productos FT Synthetics. El incumplimiento de los procedimientos puede resultar en lesiones graves o incluso la muerte.

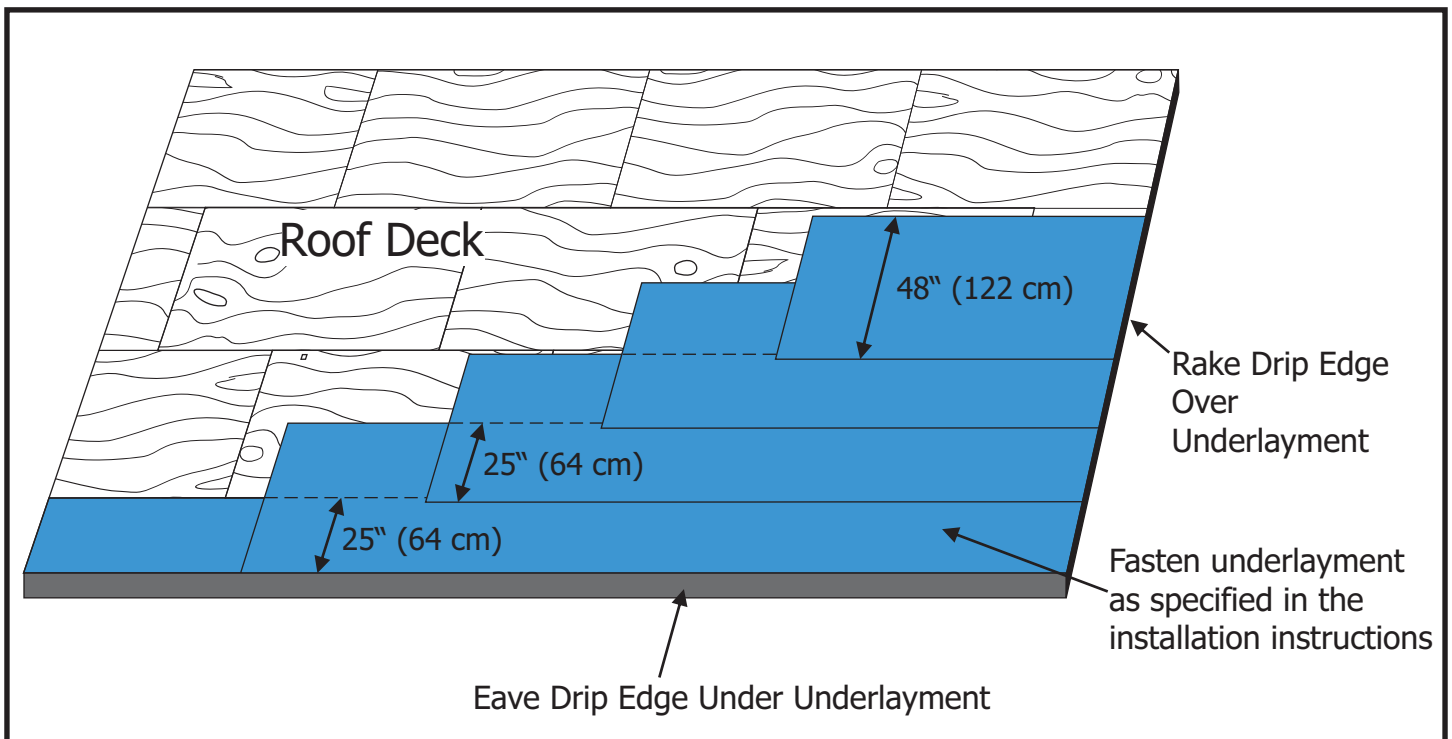
Single Layer Application of FT PLATINUM

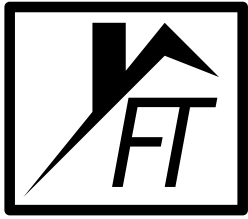
For slopes greater than 4:12 FT PLATINUM should be installed horizontally starting from the bottom of the roof with 4 inch overlaps working up the roof.



Double Layer Application of FT PLATINUM

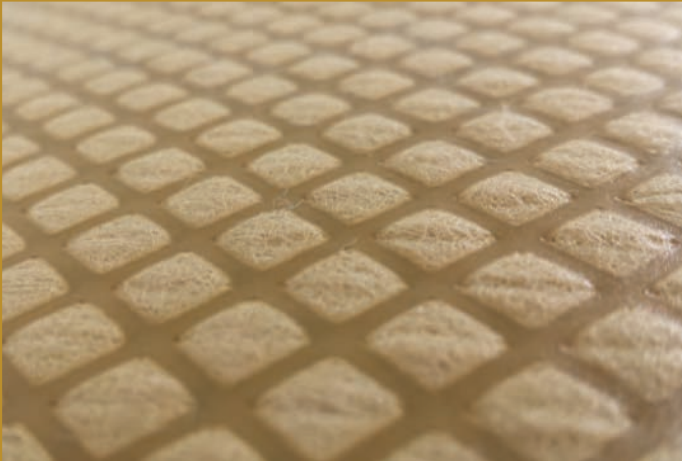
For slopes 2:12 to 4:12 FT PLATINUM should be installed horizontally starting from the bottom of the roof with 25 inch overlaps working up the roof.





GOLD

A New Generation of Underlayments





GOLD

Synthetic Roofing Underlayment

FT GOLD Features and Benefits

FT Synthetics products come with over two decades of research through listening to our customers, engineers, architects, roofing contractors/installers and home owners. Our products provide ultimate high performance and protection for the installer and your home. Our products are fully synthetic, 100% recyclable, offer superior grip protection, excellent UV resistance, are the most pliable and of course are easy to use. They are light weight but durable and provide the best protection 5 X more coverage per roll as compared to #30 felt.

- GRIPSPOT™ technology for superior slip resistance
- Lighter weight and stronger than traditional #30 felt
- Up to 180 day UV resistance
- Greater coverage per roll than #30 felt
- 100% recyclable water resistant polyolefin construction
- Wrinkle free and low temperature flexibility for ease of installation
- Meets and exceeds ASTM AC188, D226, D4869, CAN/CSA A123.3
- Intertek Code Compliance CCRR 1028
- Class A ASTM E108 Fire Rating
- LIFETIME limited Warranty

GRIPSPOT™ Technology is your ultimate protection on the roof, working in any weather condition. FT Synthetics has focused its research towards roofer safety and ease of use. FT Synthetics incorporates its patented GRIPSPOT™ technology, with its raised fibrous spots for traction and smooth channels for shedding water, to provide outstanding slip resistance. **GOLD** is light weight, easy to carry, cool to the touch and pliable under extreme temperatures. **GOLD** has a wrinkle free surface, lays flat and straight over longer distances (unlike many products in the market which ripple and curve) and stays put with its underside non slip coating. All of these features combined with its print design result in easier, faster and more accurate installations. **GOLD** can be used in most types of installations, whether they are commercial or residential. It can be used with metal, wood, and asphalt shingles, slate or concrete tiles. **GOLD** meets and exceeds required industry standards.



FBC #FL20853



GOLD

Synthetic Roofing Underlayment

FT GOLD Technical Data

ROLLS AND PALLET SPECIFICATIONS	
WIDTH PER ROLL	48" / 122 cm
WEIGHT PER ROLL	32.0 lb / 14.5 kg
LENGTH PER ROLL	250 ft / 76.2 m
ROLLS PER PALLET (48 X 48)	36
PALLET WEIGHT	1220 lbs / 554 kg

TEST & ASTM STANDARD	GOLD	#30 FELT
Material Composition	Polyolefin	Asphalt
UV Resistance	6 Months	None
Breaking Strength ASTM D 5034 MD	120 lb / 54 kg	NA
Breaking Strength ASTM D 5034 CD	110 lb / 50 kg	NA
Tear Strength ASTM D4533 MD	35 lb / 16 kg	NA
Tear Strength ASTM D4533 CD	32 lb / 15 kg	NA
Water shower Exposure ASTM D 4869	Pass	NA
Permeability ASTM E96	<0.05 Perms	1.75 Perms
Mullen Burst	120 psi / 827 kpa	NA
Nominal Thickness ASTM D1777	16 mils / 0.41 mm	60 mils
Temperature Range	-40°F to 240°F / (-40°C to 115°C)	
Enhanced Slip Resistant Surface	Excellent	Basic
Warranty	30 Years	None



GOLD

Synthetic Roofing Underlayment

Installation Instructions:

Caution: Always follow Safety Instruction, Building Codes and Safe Work Practices issues by the local Govt. bodies (e.g. OSHA / WCB)

Use: FT Synthetics® products are a secondary layer protection approved for installation over plywood with proper fasteners on roof slopes 2:12 and greater. FT Synthetics underlayment is an air, vapor and water barrier with <1 Perm and therefore should be installed above a properly ventilated space. Product is a secondary barrier under a primary roofing product such as asphalt shingles, synthetic shingles, metal, tiles, slate, and cedar shakes.

Preparation: Before installing the underlayment ensure that the roof is dry and clear of any debris or any sharp protrusions.

Installation: FT Synthetics underlayment is laid out horizontally with printed side up using 4" horizontal laps and 6" vertical laps. For prolonged exposure where driving rain or strong winds are expected it is recommended to double the overlaps. For low slope applications between 2:12 to 4:12, it is recommended to overlap 50% plus 1".

Fastening: FT Synthetics underlayment should be installed with plastic or metal (ring shank or smooth shank) cap-nails or cap-staples. Un-capped staples or standard roofing nails may be used if the primary roofing material is installed within 48 hours (unless rain or high winds are expected). Use of un-capped fasteners may result in a possibility of blow off or leakage around the fasteners.

Exposure: For short term coverage (48 hours) underlayment can be fastened using every other anchoring position as printed on the product. For extended exposure fasten the product using every anchoring position as printed on the product. All anchoring must be performed flush to the roof, 90 degrees to the roof deck that will hold the material tightly with the plywood. Product has 180 Days UV protection, but it should not be considered a final roofing system. A proper final roofing system should be installed over the product to get the proper protection.

Safety Notification:

FT Synthetics products are designed with the GRIPSPOT™ technology for better skid protection for the roofer but product may become slippery due to high moisture, frost, rain, water, dust, debris or other conditions. Use precautions when working on the roof. Follow all local and federal safety codes when installing any roofing system including FT Synthetics products. Failure to adhere to those procedures may result in serious injury or even death.



GOLD

Membrane Synthétique Pour Toiture

Instructions d'installation :

Avertissement : Suivez toujours les consignes de sécurité, les codes du bâtiment et les pratiques de travail sécuritaires émis par les organismes gouvernementaux locaux (par exemple OSHA / WCB)

Utilisation: Les produits FT Synthetics® sont des couches de protections secondaires approuvées pour l'installation de contreplaqué avec des fixations appropriées sur des pentes de toit 2:12 et plus pentues. La sous-couche FT Synthetics est une barrière contre l'air, la vapeur et l'eau avec une perméabilité <1 qui par conséquent doit être installée par-dessus un espace adéquatement aéré. Le produit est une barrière secondaire sous un produit de toiture principal comme des bardeaux d'asphalte, synthétiques, de métal, des tuiles, de l'ardoise et des bardeaux de cèdres.

Préparation: Avant d'installer la sous-couche, assurez-vous que le toit soit sec et libre de tout débris ou de toute protubérance tranchante.

Installation: La sous-couche FT Synthetics est étendue horizontalement avec le côté imprimé vers le haut en utilisant des chevauchements horizontaux de 4 po et verticaux de 6 po. Pour une exposition prolongée où de la pluie battante et de grands vents sont attendus, il est recommandé de doubler les chevauchements. Pour les applications sur une pente douce entre 2:12 à 4:12, il est recommandé de chevaucher à 50 % plus 1 po.

Fixations: La sous-couche FT Synthetics doit être installée avec des clous ou des agrafes à capuchon en plastique ou en métal (à tige baguée ou lisse). Des agrafes non couvertes ou des clous à toiture normaux peuvent être utilisés si le matériel de toiture principal est installé en moins de 48 heures (sauf si de la pluie ou des vents sont attendus). Utiliser des fixations non couvertes peut causer des pertes au vent ou des fuites autour des fixations.

Exposition: Pour une couverture à court terme (48 heures), la sous-couche peut être fixée en utilisant toute autre position d'ancrage comme indiqué sur le produit. Pour une exposition prolongée, fixez le produit en utilisant la position d'ancrage comme indiqué sur le produit. Tout ancrage doit être effectué au ras du toit, à 90 degrés par rapport au platelage de toit qui tiendra fermement le matériau avec le contreplaqué. Le produit a une protection UV de 180 jours, mais il ne devrait pas être considéré comme un système de toiture final. Un système de toiture final adéquat doit être installé sur le produit pour obtenir une protection appropriée.

Avis de sécurité :

Les produits FT Synthetics est conçu avec la technologie GRIPSPOT pour une meilleure protection contre le dérapage pour le couvreur, mais il peut devenir glissant à cause de la forte humidité, du gel, de la pluie, de l'eau, de poussières, de débris et d'autres conditions. Utilisez avec précaution lorsque vous travaillez sur le toit. Suivez tous les codes de sécurité locaux et fédéraux lors de l'installation d'un système de couverture de toiture, y compris les produits FT Synthetics. Ne pas respecter ces procédures peut entraîner des blessures graves ou même la mort.



GOLD

Membrana Sintética Para Techos

Instrucciones para la instalación:

Precaución: Siga siempre las instrucciones de seguridad, códigos de construcción y las cuestiones prácticas de trabajo seguras establecidas por el organismo de gobierno local. (Por ejemplo, OSHA / WCB)

Uso: Los productos FT Synthetics® son una capa secundaria de protección aprobada para su instalación sobre madera contrachapada con sujetadores adecuados en pendientes de techo 2:12 y mayores. El recubrimiento inferior FT Synthetics es una barrera de aire, vapor y agua con Perm >1 y, por lo tanto, debe instalarse sobre un espacio con ventilación adecuada. El producto es una barrera secundaria debajo de un producto primario de techado como tablillas asfálticas, tablillas sintéticas, metal, tejas, pizarras y tejas de cedro.

Preparación: Antes de instalar el recubrimiento inferior, asegúrese de que el techo esté seco y libre de escombros o protuberancias puntiagudas.

Instalación: El recubrimiento inferior FT Synthetics se coloca horizontalmente con la cara impresa mirando hacia arriba usando vueltas horizontales de 4" y vueltas verticales de 6". En caso de exposición prolongada cuando se prevean lluvias o vientos fuertes, se recomienda duplicar las superposiciones. Para aplicaciones con pendientes bajas entre 2:12 y 4:12, se recomienda superponer 50 % más 1".

Fijación: El recubrimiento inferior FT Synthetics debe instalarse con clavos o grapas con tapas de plástico o de metal (caña roscada o caña lisa). Se pueden utilizar clavos estándar de techo o grapas sin tapa si el material de techado primario se instala en un plazo de 48 horas (a menos que se prevean lluvias o vientos fuertes). El uso de sujetadores sin tapa puede dar lugar a la posibilidad de que se produzcan fugas alrededor de los sujetadores.

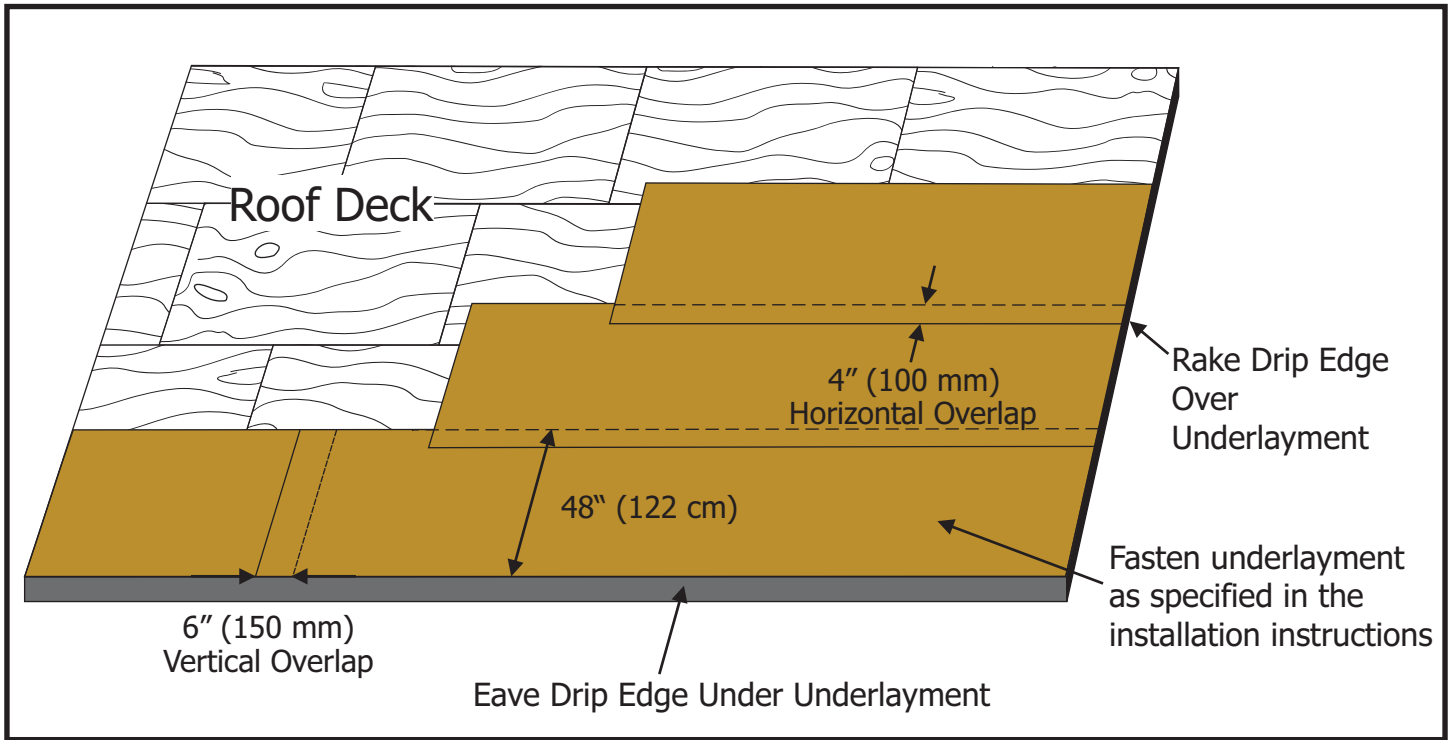
Exposición: Para una cobertura a corto plazo (48 horas), el recubrimiento inferior puede fijarse utilizando cualquier otra posición de anclaje impresa en el producto. Para una exposición prolongada, fije el producto utilizando cada posición de anclaje impresa en el producto. Todos los anclajes se deben realizar a ras del techo, a 90 grados de la cubierta del techo que sostendrá el material firmemente con la madera contrachapada. El producto cuenta con 180 días de protección UV, pero no se debe considerar como un sistema definitivo de techado. Se debe instalar un sistema definitivo de techado adecuado sobre el producto para obtener la protección adecuada.

Notificación de seguridad:

Los productos FT Synthetics están diseñados con la tecnología GRIPSPOT que le brinda al techador una mejor protección de deslizamiento. No obstante, el producto puede ser resbaloso debido a la alta humedad, heladas, lluvia, agua, polvo, escombros u otras condiciones. Utilice las precauciones necesarias cuando trabaje en el techo. Siga todos los códigos de seguridad locales y federales para la instalación de cualquier sistema de techado incluyendo los productos FT Synthetics. El incumplimiento de los procedimientos puede resultar en lesiones graves o incluso la muerte.

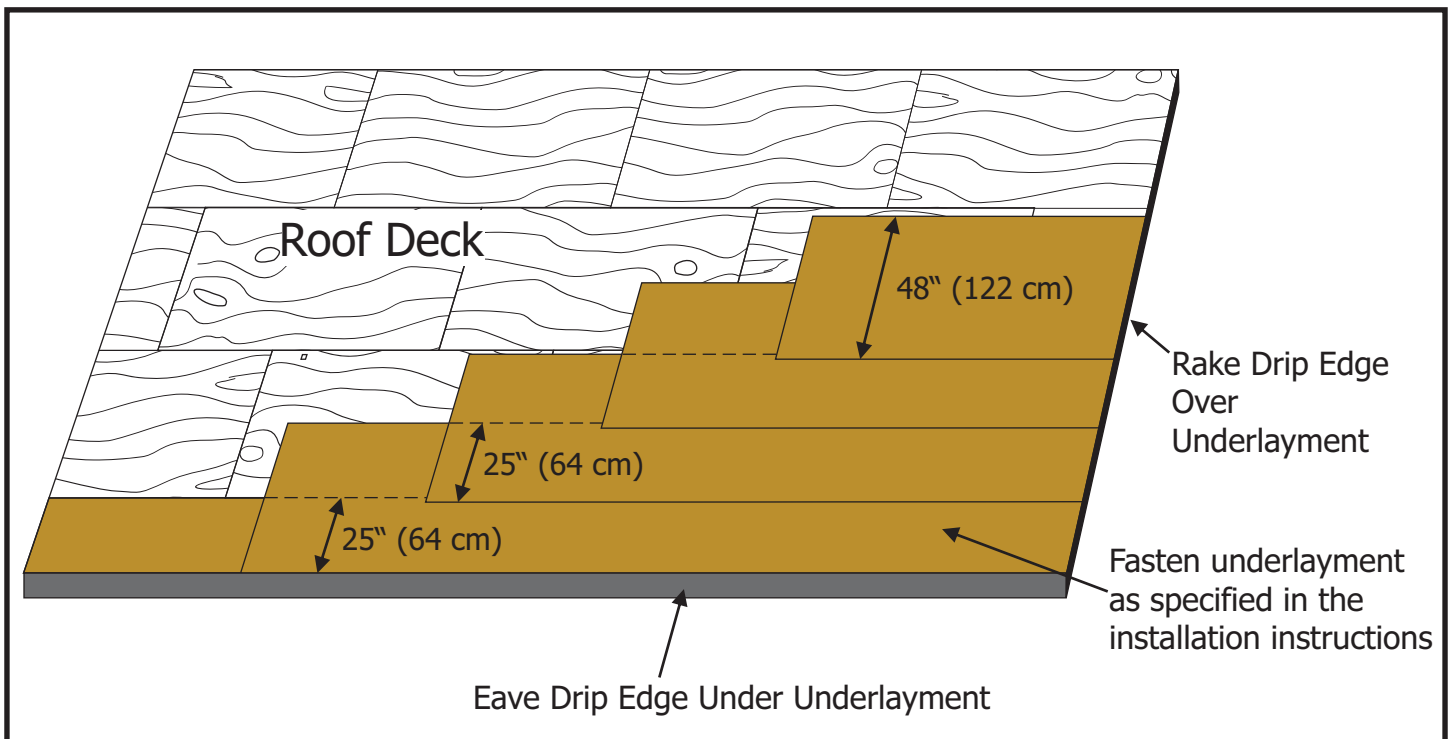
Single Layer Application of FT GOLD

For slopes greater than 4:12 FT GOLD should be installed horizontally starting from the bottom of the roof with 4 inch overlaps working up the roof.



Double Layer Application of FT GOLD

For slopes 2:12 to 4:12 FT GOLD should be installed horizontally starting from the bottom of the roof with 25 inch overlaps working up the roof.





FT SYNTHETICS®

LIFETIME Limited Warranty

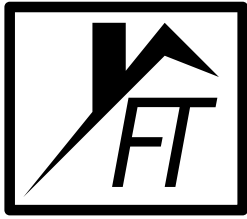
FT Synthetics Inc. ("FT Synthetics" the "Manufacturer") warrants to the purchaser (the "Building Owner") that its roofing underlayment product models; **GOLD, PLATINUM, HYDRA** and **PLATINUM HT-SA** (the "Product"), if installed in strict accordance with the Manufacturer's installation instructions, are free of manufacturing defects and will retain their ability to shed water under the primary roofing material for the **LIFETIME** of the service application to which it has been applied, provided the terms, conditions and limitations set forth herein are met. This Warranty does not apply if any part of the product is exposed to UV after roof cladding installation, and/or the product has been installed and left uncovered without roof cladding for more than one hundred and eighty (180) days.

The manufacturers obligations are subject to the following terms, conditions and limitations:

1. **Installation:** The job conditions, surface preparation, design, and application must be in accordance with Manufacturer's written installation instructions and recognized industry building practices and standards.
2. **Remedy:** FT Synthetics agrees to provide either replacement product or refund the original purchase price paid for any portion of the above noted FT Synthetic product found to be defective. The remedy stated herein is the Building Owner's sole and exclusive remedy for defects in or failure of the materials supplied by the Manufacturer. The Manufacturer shall have no liability for any problems caused by leaks or defects caused by the failure of the roofing contractor to apply the Product in accordance with written instructions and specifications or recognized industry standards and practices. In no event shall the Manufacturer be held liable for damages and/or for special, incidental, indirect, punitive or consequential damages. The Manufacturer's liability on any claim of any kind for any loss or damage arising out of, in connection with, or resulting from the manufacturer, sale or resale of the Product shall not exceed the original purchase price of the Product.
3. **Sole and Exclusive Warranty:** This Warranty is exclusive and replaces all other warranties, whether express or implied, including the implied warranties of merchantability and fitness for a particular purpose or use. No employee, agent, or representative of the Manufacturer has authority to make or give any other warranty or vary any of the terms or conditions of this Warranty. No statements made in any of the Manufacturer's brochures, pamphlets, flyers, website, advertisements, or promotional materials of any kind constitute a warranty other than as set forth herein.
4. **Coverage Exclusions:** This warranty does not cover problems with non-defective product caused by conditions or handling beyond the manufacturers control. The following are conditions that are excluded from this Warranty:
 - (a) Damage or leaks caused by;
 - I. penetrations through the product (This includes penetrations by fasteners);
 - II. natural forces, including but not limited to; gale-force winds, lightning, hail, fire, hurricanes or other similar natural causes.
 - III. improper or faulty product installation, and or damage caused by alterations or repairs made after completion of the roof, including installation of structures, fixtures or utilities on or through the roof;
 - IV. environmental fallout or overexposure to commercial industrial solvents, acids, caustic fluids, oils, waxes, gasses, absorbent clays, bleaches or plasticizers;
 - V. objects falling on the roof (e.g. tree branches);
 - VI. materials storage on the roof, or by excessive foot traffic on the roof;
 - VII. failure of the underlying roofing structure resulting from defective design, improper construction, incorrect installation,
 - VIII. settlement and or movement of the roof deck or roof accessories, including but not limited to vents, drains, curb units or other roof components;
 - IX. ponding water or the absence of positive drainage within the warranted roof area;
 - X. improper or inadequate roof ventilation, or infiltration or condensation of moisture in, through, around, or above the walls of the building. This includes mold growth caused by inadequate ventilation or moisture that exists in the building or that enters the building prior to or after the installation of the Product;
 - XI. vandalism, animal abuse, acts of war or civil disturbances;
 - XII. any other cause beyond the manufacturers control.
 - (b) Color variations or fading of the product facer as the result of normal weathering or atmosphere conditions are cosmetic only and will not significantly affect the products performance or ability to shed water;
 - (c) Cost of remediation or removal of hazardous materials, asbestos, mold, fungus, or any other contaminants;
 - (d) Loss of profits or damage to business reputation, including costs associated with removing or replacing primary roofing materials;
5. **Notice & Claim Procedure:** The Building Owner shall notify the manufacturer of any potential claims under this Warranty within thirty (30) days of noticing a problem. You may report a claim by e-mail, fax or mail to FT Synthetics Technical Service Department per the contact information provided below. You will be required to provide proof of the date your FT Synthetic product was installed and that you were the owner of the property at that time. Your claim should describe the problem in detail and include pictures of the defective product. FT Synthetics may require you at your expense to send in a sample of the product in question for testing. All claims will be evaluated and resolved in a timely manner after proper notification, and in accordance with the terms of this limited warranty. FT Synthetics reserves the right to reserve warranty claim judgment pending a full field evaluation if it deems necessary. All correspondence regarding warranty claims to be sent to:

FT Synthetics Inc.
Attention: Warranty Department
Unit 1 13120-76th Avenue,
Surrey BC Canada V3W 2V6
E-mail: warranty@ftsyn.com;
Call toll free USA & Canada at 1-844-353-9839
6. **Non-Transferrable:** This Warranty applies to the original purchaser (Building Owner) only and is not transferred upon change of ownership of the building.
7. **Jurisdiction:** Any claim or dispute between the Building Owner and FT Synthetics arising out of this Warranty or relating to any material supplied by FT Synthetics shall be resolved in the provincial courts of British Columbia, Canada.
8. **Enforceability:** If any of the terms contained herein are unenforceable, such term shall be limited only to the extent necessary to make it enforceable, and all other terms shall remain in full force and effect.

The FT Logo and FT Synthetics® are registered trademarks of FT Synthetics
Rev. 030718



SILVER

A New Generation of Underlayments





SILVER

Synthetic Roofing Underlayment

FT SILVER Features and Benefits

FT Synthetics products come with over two decades of research through listening to our customers, engineers, architects, roofing contractors/installers and home owners. Our products provide ultimate high performance and protection for the installer and your home. Our products are fully synthetic, 100% recyclable, offer superior grip protection, excellent UV resistance, are the most pliable and of course are easy to use. They are light weight but durable and provide the best protection available in the market. **SILVER** is your cost effective and reliable #15 felt replacement product, which is easy to carry, and has 2.5X more coverage per roll as compared to #15 felt.

- GRIPSPOT™ technology for superior slip resistance
- Lighter weight and stronger than traditional #15 felt
- Up to 90 day UV resistance
- Greater coverage per roll than #15 felt
- 100% recyclable water resistant polyolefin construction
- Wrinkle free and low temperature flexibility for ease of installation
- Meets and exceeds ASTM AC188, D226, D4869, CAN/CSA A123.3
- Intertek Code Compliance CCRR 1028
- Class A ASTM E108 Fire Rating
- 20 Year limited Warranty

GRIPSPOT™ Technology is your ultimate protection on the roof, working in any weather condition. FT Synthetics has focused its research towards roofer safety and ease of use. FT Synthetics incorporates its patented GRIPSPOT™ technology, with its raised fibrous spots for traction and smooth channels for shedding water, to provide outstanding slip resistance. **SILVER** is light weight, easy to carry, cool to the touch and pliable under extreme temperatures. **SILVER** has a wrinkle free surface, lays flat and straight over longer distances (unlike many products in the market which ripple and curve) and stays put with its underside non slip coating. All of these features combined with its print design result in easier, faster and more accurate installations. **SILVER** can be used in most types of installations, whether they are commercial or residential. It can be used with wood, asphalt & synthetic shingles and residential metal roofing. **SILVER** meets and exceeds required industry standards.



FBC #FL20853



SILVER

Synthetic Roofing Underlayment

FT SILVER Technical Data

ROLLS AND PALLET SPECIFICATIONS	
WIDTH PER ROLL	48" / 122 cm
WEIGHT PER ROLL	22 lb / 10 kg
LENGTH PER ROLL	250 ft / 76.2 m
ROLLS PER PALLET (44 X 44)	49
PALLET WEIGHT	1138 lbs / 516 kg

TEST & ASTM STANDARD	SILVER	#15 FELT
Material Composition	Polyolefin	Asphalt
UV Resistance	3 Months	None
Breaking Strength ASTM D 5034 MD	102 lb / 46 kg	NA
Breaking Strength ASTM D 5034 CD	96.0 lb / 44 kg	NA
Tear Strength ASTM D4533 MD	25 lb / 11 kg	NA
Tear Strength ASTM D4533 CD	23 lb / 10 kg	NA
Water shower Exposure ASTM D 4869	Pass	NA
Permeability ASTM E96	<0.05 Perms	5 Perms
Mullen Burst	113 psi / 779 kpa	NA
Nominal Thickness ASTM D1777	12 mils / 0.30 mm	21 mils
Temperature Range	-40°F to 240°F / (-40°C to 115°C)	
Enhanced Slip Resistant Surface	Excellent	Basic
Warranty	20 Years	None



SILVER

Synthetic Roofing Underlayment

Installation Instructions:

Caution: Always follow Safety Instruction, Building Codes and Safe Work Practices issues by the local Govt. bodies (e.g. OSHA / WCB)

Use: FT Synthetics® products are a secondary layer protection approved for installation over plywood with proper fasteners on roof slopes 2:12 and greater. FT Synthetics underlayment is an air, vapor and water barrier with <1 Perm and therefore should be installed above a properly ventilated space. Product is a secondary barrier under a primary roofing product such as asphalt shingles, synthetic shingles, metal, tiles, and cedar shakes.

Preparation: Before installing the underlayment ensure that the roof is dry and clear of any debris or any sharp protrusions.

Installation: FT Synthetics underlayment is laid out horizontally with printed side up using 4" horizontal laps and 6" vertical laps. For prolonged exposure where driving rain or strong winds are expected it is recommended to double the overlaps. For low slope applications between 2:12 to 4:12, it is recommended to overlap 50% plus 1".

Fastening: FT Synthetics underlayment should be installed with plastic or metal (ring shank or smooth shank) cap-nails or cap-staples. Un-capped staples or standard roofing nails may be used if the primary roofing material is installed within 48 hours (unless rain or high winds are expected). Use of un-capped fasteners may result in a possibility of blow off or leakage around the fasteners.

Exposure: For short term coverage (48 hours) underlayment can be fastened using every other anchoring position as printed on the product. For extended exposure fasten the product using every anchoring position as printed on the product. All anchoring must be performed flush to the roof, 90 degrees to the roof deck that will hold the material tightly with the plywood. Product has 90 Days UV protection, but it should not be considered a final roofing system. A proper final roofing system should be installed over the product to get the proper protection.

Safety Notification:

FT Synthetics products are designed with the GRIPSPOT™ technology for better skid protection for the roofer but product may become slippery due to high moisture, frost, rain, water, dust, debris or other conditions. Use precautions when working on the roof. Follow all local and federal safety codes when installing any roofing system including FT Synthetics products. Failure to adhere to those procedures may result in serious injury or even death.



SILVER

Membrane Synthétique Pour Toiture

Instructions d'installation :

Avertissement : Suivez toujours les consignes de sécurité, les codes du bâtiment et les pratiques de travail sécuritaires émis par les organismes gouvernementaux locaux (par exemple OSHA / WCB)

Utilisation: Les produits FT Synthetics® sont des couches de protections secondaires approuvées pour l'installation de contreplaqué avec des fixations appropriées sur des pentes de toit 2:12 et plus pentues. La sous-couche FT Synthetics est une barrière contre l'air, la vapeur et l'eau avec une perméabilité <1 qui par conséquent doit être installée par-dessus un espace adéquatement aéré. Le produit est une barrière secondaire sous un produit de toiture principal comme des bardeaux d'asphalte, synthétiques, de métal, et des bardeaux de cèdres.

Préparation: Avant d'installer la sous-couche, assurez-vous que le toit soit sec et libre de tout débris ou de toute protubérance tranchante.

Installation: La sous-couche FT Synthetics est étendue horizontalement avec le côté imprimé vers le haut en utilisant des chevauchements horizontaux de 4 po et verticaux de 6 po. Pour une exposition prolongée où de la pluie battante et de grands vents sont attendus, il est recommandé de doubler les chevauchements. Pour les applications sur une pente douce entre 2:12 à 4:12, il est recommandé de chevaucher à 50 % plus 1 po.

Fixations: La sous-couche FT Synthetics doit être installée avec des clous ou des agrafes à capuchon en plastique ou en métal (à tige baguée ou lisse). Des agrafes non couvertes ou des clous à toiture normaux peuvent être utilisés si le matériel de toiture principal est installé en moins de 48 heures (sauf si de la pluie ou des vents sont attendus). Utiliser des fixations non couvertes peut causer des pertes au vent ou des fuites autour des fixations.

Exposition: Pour une couverture à court terme (48 heures), la sous-couche peut être fixée en utilisant toute autre position d'ancrage comme indiqué sur le produit. Pour une exposition prolongée, fixez le produit en utilisant la position d'ancrage comme indiqué sur le produit. Tout ancrage doit être effectué au ras du toit, à 90 degrés par rapport au platelage de toit qui tiendra fermement le matériau avec le contreplaqué. Le produit a une protection UV de 90 jours, mais il ne devrait pas être considéré comme un système de toiture final. Un système de toiture final adéquat doit être installé sur le produit pour obtenir une protection appropriée.

Avis de sécurité :

Les produits FT Synthetics est conçu avec la technologie GRIPSPOT pour une meilleure protection contre le dérapage pour le couvreur, mais il peut devenir glissant à cause de la forte humidité, du gel, de la pluie, de l'eau, de poussières, de débris et d'autres conditions. Utilisez avec précaution lorsque vous travaillez sur le toit. Suivez tous les codes de sécurité locaux et fédéraux lors de l'installation d'un système de couverture de toiture, y compris les produits FT Synthetics. Ne pas respecter ces procédures peut entraîner des blessures graves ou même la mort.



SILVER

Membrana Sintética Para Techos

Instrucciones para la instalación:

Precaución: Siga siempre las instrucciones de seguridad, códigos de construcción y las cuestiones prácticas de trabajo seguras establecidas por el organismo de gobierno local. (Por ejemplo, OSHA / WCB)

Uso: Los productos FT Synthetics® son una capa secundaria de protección aprobada para su instalación sobre madera contrachapada con sujetadores adecuados en pendientes de techo 2:12 y mayores. El recubrimiento inferior FT Synthetics es una barrera de aire, vapor y agua con Perm >1 y, por lo tanto, debe instalarse sobre un espacio con ventilación adecuada. El producto es una barrera secundaria debajo de un producto primario de techado como tablillas asfálticas, tablillas sintéticas, metal, y tejas de cedro.

Preparación: Antes de instalar el recubrimiento inferior, asegúrese de que el techo esté seco y libre de escombros o protuberancias puntiagudas.

Instalación: El recubrimiento inferior FT Synthetics se coloca horizontalmente con la cara impresa mirando hacia arriba usando vueltas horizontales de 4" y vueltas verticales de 6". En caso de exposición prolongada cuando se prevean lluvias o vientos fuertes, se recomienda duplicar las superposiciones. Para aplicaciones con pendientes bajas entre 2:12 y 4:12, se recomienda superponer 50 % más 1".

Fijación: El recubrimiento inferior FT Synthetics debe instalarse con clavos o grapas con tapas de plástico o de metal (caña roscada o caña lisa). Se pueden utilizar clavos estándar de techo o grapas sin tapa si el material de techado primario se instala en un plazo de 48 horas (a menos que se prevean lluvias o vientos fuertes). El uso de sujetadores sin tapa puede dar lugar a la posibilidad de que se produzcan fugas alrededor de los sujetadores.

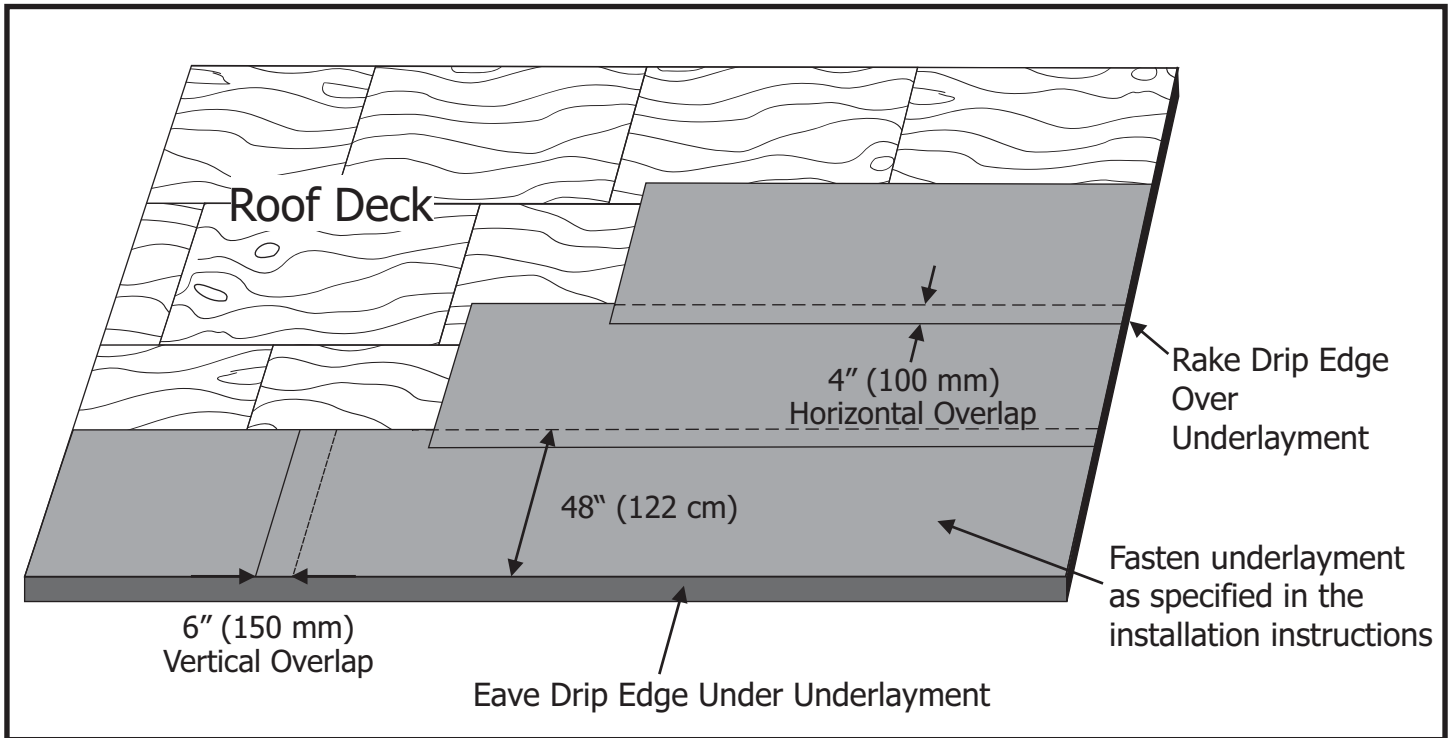
Exposición: Para una cobertura a corto plazo (48 horas), el recubrimiento inferior puede fijarse utilizando cualquier otra posición de anclaje impresa en el producto. Para una exposición prolongada, fije el producto utilizando cada posición de anclaje impresa en el producto. Todos los anclajes se deben realizar a ras del techo, a 90 grados de la cubierta del techo que sostendrá el material firmemente con la madera contrachapada. El producto cuenta con 90 días de protección UV, pero no se debe considerar como un sistema definitivo de techado. Se debe instalar un sistema definitivo de techado adecuado sobre el producto para obtener la protección adecuada.

Notificación de seguridad:

Los productos FT Synthetics están diseñados con la tecnología GRIPSPOT que le brinda al techador una mejor protección de deslizamiento. No obstante, el producto puede ser resbaloso debido a la alta humedad, heladas, lluvia, agua, polvo, escombros u otras condiciones. Utilice las precauciones necesarias cuando trabaje en el techo. Siga todos los códigos de seguridad locales y federales para la instalación de cualquier sistema de techado incluyendo los productos FT Synthetics. El incumplimiento de los procedimientos puede resultar en lesiones graves o incluso la muerte.

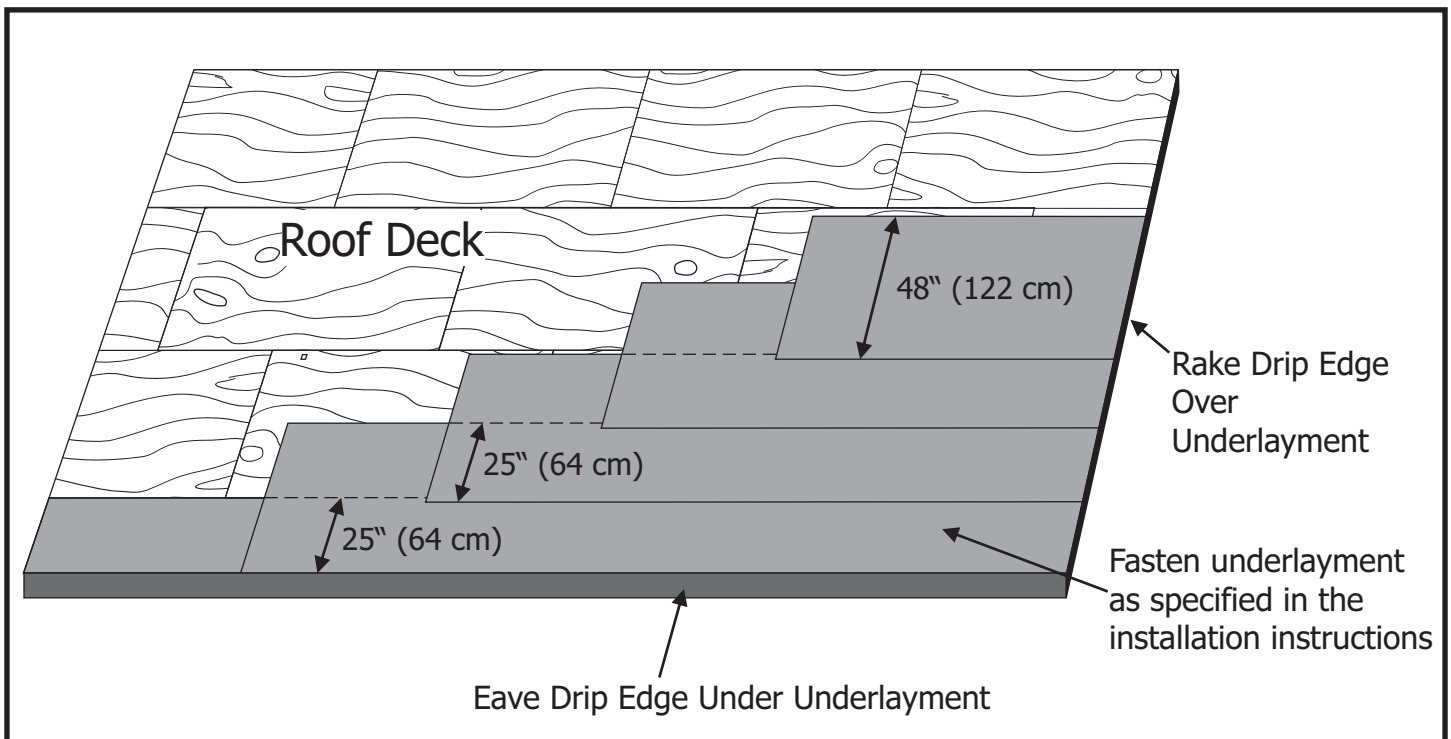
Single Layer Application of FT SILVER

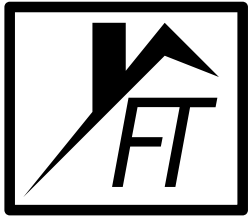
For slopes greater than 4:12 FT SILVER should be installed horizontally starting from the bottom of the roof with 4 inch overlaps working up the roof.



Double Layer Application of FT SILVER

For slopes 2:12 to 4:12 FT SILVER should be installed horizontally starting from the bottom of the roof with 25 inch overlaps working up the roof.





PRO-20

A New Generation of Underlayments





PRO-20

Synthetic Roofing Underlayment

FT PRO-20 Features and Benefits

FT Synthetics products come with over two decades of research through listening to our customers, engineers, architects, roofing contractors/installers and home owners. Our products provide ultimate high performance and protection for the installer and your home. Our products are fully synthetic, 100% recyclable, offer superior grip protection, excellent UV resistance, are the most pliable and of course are easy to use. They are light weight but durable and provide the best protection available in the market. **PRO-20** is your cost effective and reliable 15 lb felt replacement product, which is easy to carry, and has 2.5X more coverage per roll as compared to felt.

- Superior nonwoven slip resistance surface
- Lighter weight and stronger than traditional #15 felt
- Up to 90 day UV resistance
- Greater coverage per roll than #15 felt
- 100% recyclable water resistant polyolefin construction
- Wrinkle free and low temperature flexibility for ease of installation
- Meets and exceeds ASTM AC188, D226, D4869, CAN/CSA A123.3
- Intertek Code Compliance CCRR 1028
- Class A ASTM E108 Fire Rating
- 20 Year limited Warranty

PRO-20 is your ultimate protection on the roof, working in any weather condition. FT Synthetics has focused its research towards roofer safety and ease of use. **PRO-20** is light weight, easy to carry, cool to the touch and pliable under extreme temperatures. **PRO-20** has a wrinkle free surface, lays flat and straight over longer distances (unlike many products in the market which ripple and curve) and stays put with its underside non slip coating. All of these features combined with its print design result in easier, faster and more accurate installations. **PRO-20** can be used in most types of installations, whether they are commercial or residential. It can be used with wood, asphalt & synthetic shingles and residential metal roofing. **PRO-20** meets and exceeds required industry standards.



FBC #FL22692



PRO-20

Synthetic Roofing Underlayment

FT PRO-20 Technical Data

ROLLS AND PALLET SPECIFICATIONS	
WIDTH PER ROLL	42" / 122 cm
WEIGHT PER ROLL	22 lb / 10 kg
LENGTH PER ROLL	286 ft / 87.2 m
ROLLS PER PALLET (44 X 44)	49
PALLET WEIGHT	1138 lbs / 516 kg

TEST & ASTM STANDARD	PRO-20	#15 FELT
Material Composition	Polyolefin	Asphalt
UV Resistance	3 Months	None
Breaking Strength ASTM D 5034 MD	101 lb / 46 kg	NA
Breaking Strength ASTM D 5034 CD	96 lb / 44 kg	NA
Tear Strength ASTM D4533 MD	25 lb / 11 kg	NA
Tear Strength ASTM D4533 CD	23 lb / 10 kg	NA
Water shower Exposure ASTM D 4869	Pass	NA
Permeability ASTM E96	<0.05 Perms	5 Perms
Mullen Burst	102 psi / 703 kpa	NA
Nominal Thickness ASTM D1777	10 mils / 0.25 mm	21 mils
Temperature Range	-40°F to 240°F / (-40°C to 115°C)	
Enhanced Slip Resistant Surface	Excellent	Basic
Warranty	20 Years	None



PRO-20

Synthetic Roofing Underlayment

Installation Instructions:

Caution: Always follow Safety Instruction, Building Codes and Safe Work Practices issues by the local Govt. bodies (e.g. OSHA / WCB)

FT Synthetics products should be installed with Plastics Cap or Metal Cap nails with either ring shank or smooth shank Nails. DO NOT USE STAPLES. Use of staples will void the Manufacturer's warranty.

FT Synthetics products are a secondary layer protection approved for installation over Plywood with proper fasteners. FT Synthetics underlayment is an air, vapour and water barrier with <1 Perm. FT Synthetics underlayment is laid out horizontally with printed side up using 6" vertical laps and 4" horizontal laps. The overlaps ensure that the water runs over the overlaps without getting under the material. Before installing the underlayment ensure that the roof is clear of any debris or any sharp protrusions.

Product must be attached to the roofing structure using 1" plastic or metal cap nails. Product must be fastened with the nail pattern printed on the product. All anchoring must be performed flush to the roof, 90 degrees to the roof deck that will hold the material tightly with the plywood. The use of every other anchoring location printed on the product is also acceptable. For prolonged exposure, double the overlaps and use every anchor location. Product has 90 Days UV protection but it should not be considered a final roofing system. A proper final roofing system should be installed over the product to get the proper protection. Product is a secondary barrier used over plywood, under a roofing system like wood and asphalt shingles and metal.

Safety Notification:

FT Synthetics products are designed with the GRIPSPOT technology for better skid protection for the roofer but product may become slippery due to high moisture, frost, rain, water, dust, debris or other conditions. Use precautions when working on the roof. Follow all local and federal safety codes when installing any roofing system including FT Synthetics products. Failure to adhere to those procedures may result in serious injury or even death.



PRO-20

Membrane Synthétique Pour Toiture

Instructions d'installation :

Avertissement : Suivez toujours les consignes de sécurité, les codes du bâtiment et les pratiques de travail sécuritaires émis par les organismes gouvernementaux locaux (par exemple OSHA / WCB)

Utilisation: Les produits FT Synthetics® sont des couches de protections secondaires approuvées pour l'installation de contreplaqué avec des fixations appropriées sur des pentes de toit 2:12 et plus pentues. La sous-couche FT Synthetics est une barrière contre l'air, la vapeur et l'eau avec une perméabilité <1 qui par conséquent doit être installée par-dessus un espace adéquatement aéré. Le produit est une barrière secondaire sous un produit de toiture principal comme des bardeaux d'asphalte, synthétiques, de métal, et des bardeaux de cèdres.

Préparation: Avant d'installer la sous-couche, assurez-vous que le toit soit sec et libre de tout débris ou de toute protubérance tranchante.

Installation: La sous-couche FT Synthetics est étendue horizontalement avec le côté imprimé vers le haut en utilisant des chevauchements horizontaux de 4 po et verticaux de 6 po. Pour une exposition prolongée où de la pluie battante et de grands vents sont attendus, il est recommandé de doubler les chevauchements. Pour les applications sur une pente douce entre 2:12 à 4:12, il est recommandé de chevaucher à 50 % plus 1 po.

Fixations: La sous-couche FT Synthetics doit être installée avec des clous ou des agrafes à capuchon en plastique ou en métal (à tige baguée ou lisse). Des agrafes non couvertes ou des clous à toiture normaux peuvent être utilisés si le matériel de toiture principal est installé en moins de 48 heures (sauf si de la pluie ou des vents sont attendus). Utiliser des fixations non couvertes peut causer des pertes au vent ou des fuites autour des fixations.

Exposition: Pour une couverture à court terme (48 heures), la sous-couche peut être fixée en utilisant toute autre position d'ancrage comme indiqué sur le produit. Pour une exposition prolongée, fixez le produit en utilisant la position d'ancrage comme indiqué sur le produit. Tout ancrage doit être effectué au ras du toit, à 90 degrés par rapport au platelage de toit qui tiendra fermement le matériau avec le contreplaqué. Le produit a une protection UV de 90 jours, mais il ne devrait pas être considéré comme un système de toiture final. Un système de toiture final adéquat doit être installé sur le produit pour obtenir une protection appropriée.

Avis de sécurité :

Les produits FT Synthetics est conçu avec la technologie GRIPSPOT pour une meilleure protection contre le dérapage pour le couvreur, mais il peut devenir glissant à cause de la forte humidité, du gel, de la pluie, de l'eau, de poussières, de débris et d'autres conditions. Utilisez avec précaution lorsque vous travaillez sur le toit. Suivez tous les codes de sécurité locaux et fédéraux lors de l'installation d'un système de couverture de toiture, y compris les produits FT Synthetics. Ne pas respecter ces procédures peut entraîner des blessures graves ou même la mort.



PRO-20

Membrana Sintética Para Techos

Instrucciones para la instalación:

Precaución: Siga siempre las instrucciones de seguridad, códigos de construcción y las cuestiones prácticas de trabajo seguras establecidas por el organismo de gobierno local. (Por ejemplo, OSHA / WCB)

Uso: Los productos FT Synthetics® son una capa secundaria de protección aprobada para su instalación sobre madera contrachapada con sujetadores adecuados en pendientes de techo 2:12 y mayores. El recubrimiento inferior FT Synthetics es una barrera de aire, vapor y agua con Perm >1 y, por lo tanto, debe instalarse sobre un espacio con ventilación adecuada. El producto es una barrera secundaria debajo de un producto primario de techado como tablillas asfálticas, tablillas sintéticas, metal, y tejas de cedro.

Preparación: Antes de instalar el recubrimiento inferior, asegúrese de que el techo esté seco y libre de escombros o protuberancias puntiagudas.

Instalación: El recubrimiento inferior FT Synthetics se coloca horizontalmente con la cara impresa mirando hacia arriba usando vueltas horizontales de 4" y vueltas verticales de 6". En caso de exposición prolongada cuando se prevean lluvias o vientos fuertes, se recomienda duplicar las superposiciones. Para aplicaciones con pendientes bajas entre 2:12 y 4:12, se recomienda superponer 50 % más 1".

Fijación: El recubrimiento inferior FT Synthetics debe instalarse con clavos o grapas con tapas de plástico o de metal (caña roscada o caña lisa). Se pueden utilizar clavos estándar de techo o grapas sin tapa si el material de techado primario se instala en un plazo de 48 horas (a menos que se prevean lluvias o vientos fuertes). El uso de sujetadores sin tapa puede dar lugar a la posibilidad de que se produzcan fugas alrededor de los sujetadores.

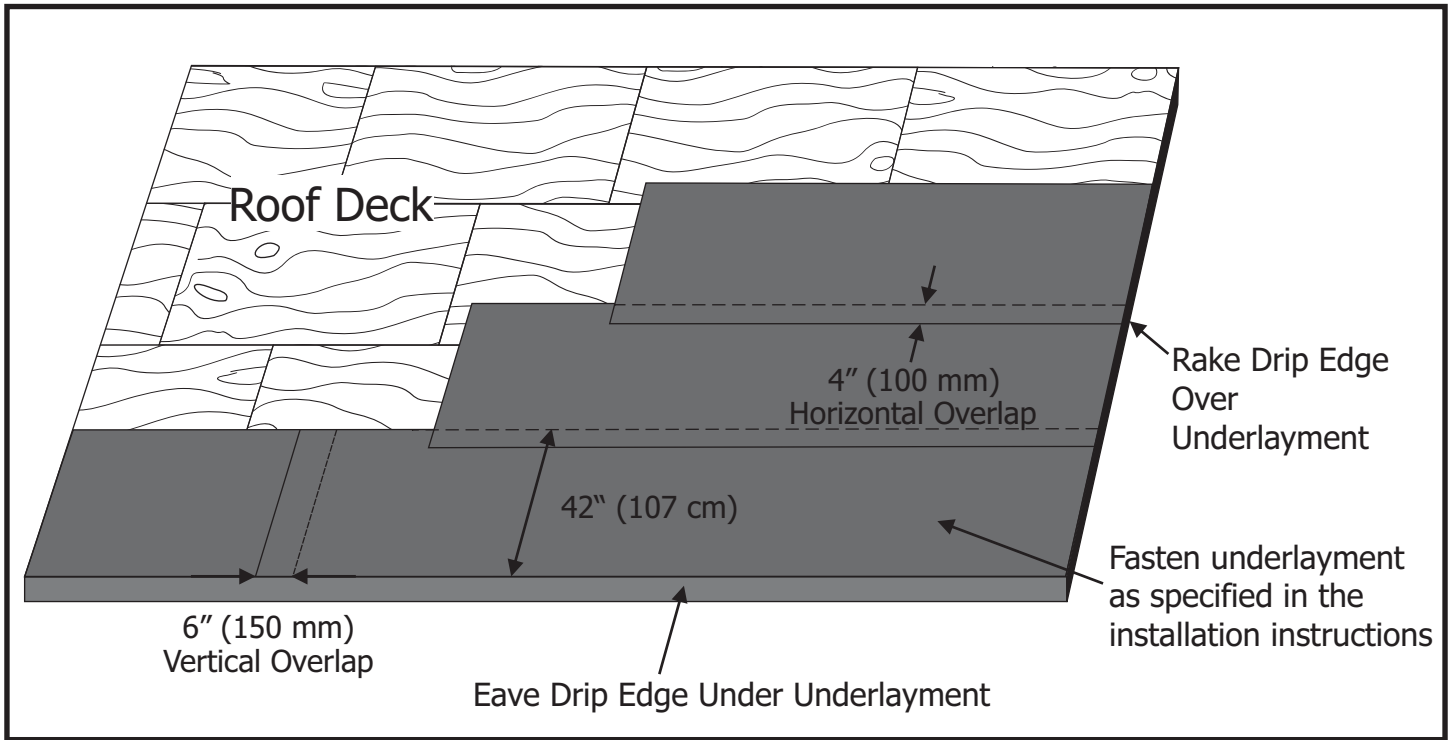
Exposición: Para una cobertura a corto plazo (48 horas), el recubrimiento inferior puede fijarse utilizando cualquier otra posición de anclaje impresa en el producto. Para una exposición prolongada, fije el producto utilizando cada posición de anclaje impresa en el producto. Todos los anclajes se deben realizar a ras del techo, a 90 grados de la cubierta del techo que sostendrá el material firmemente con la madera contrachapada. El producto cuenta con 90 días de protección UV, pero no se debe considerar como un sistema definitivo de techado. Se debe instalar un sistema definitivo de techado adecuado sobre el producto para obtener la protección adecuada.

Notificación de seguridad:

Los productos FT Synthetics están diseñados con la tecnología GRIPSPOT que le brinda al techador una mejor protección de deslizamiento. No obstante, el producto puede ser resbaloso debido a la alta humedad, heladas, lluvia, agua, polvo, escombros u otras condiciones. Utilice las precauciones necesarias cuando trabaje en el techo. Siga todos los códigos de seguridad locales y federales para la instalación de cualquier sistema de techado incluyendo los productos FT Synthetics. El incumplimiento de los procedimientos puede resultar en lesiones graves o incluso la muerte.

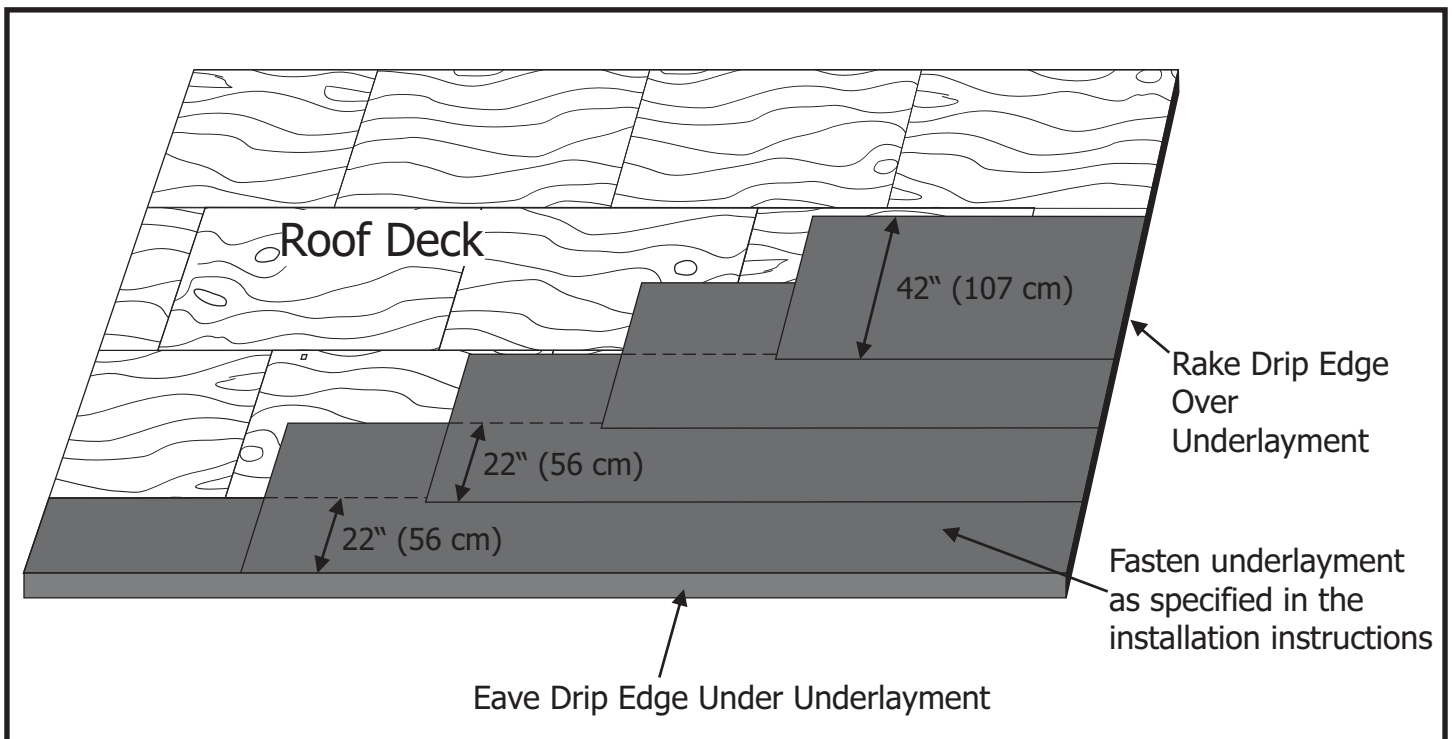
Single Layer Application of FT PRO-20

For slopes greater than 4:12 FT PRO-20 should be installed horizontally starting from the bottom of the roof with 4 inch overlaps working up the roof.



Double Layer Application of FT PRO-20

For slopes 2:12 to 4:12 FT PRO-20 should be installed horizontally starting from the bottom of the roof with 22 inch overlaps working up the roof.





20 Year Limited Warranty

FT Synthetics Inc. ("FT Synthetics" the "Manufacturer") warrants to the purchaser (the "Building Owner") that its roofing underlayment product models; **PRO-20** and **SILVER** (the "Product"), if installed in strict accordance with the Manufacturer's installation instructions, are free of manufacturing defects and will retain their ability to shed water under the primary roofing material for twenty (20) years from the sales invoice date, provided the terms, conditions and limitations set forth herein are met. This Warranty does not apply if any part of the product is exposed to UV after roof cladding installation, and/or the product has been installed and left uncovered without roof cladding for more than ninety (90) days.

The manufacturers obligations are subject to the following terms, conditions and limitations:

1. **Installation:** The job conditions, surface preparation, design, and application must be in accordance with Manufacturer's written installation instructions and recognized industry building practices and standards.
2. **Remedy:** FT Synthetics agrees to provide either replacement product or refund the original purchase price paid for any portion of the above noted FT Synthetic product found to be defective. The remedy stated herein is the Building Owner's sole and exclusive remedy for defects in or failure of the materials supplied by the Manufacturer. The Manufacturer shall have no liability for any problems caused by leaks or defects caused by the failure of the roofing contractor to apply the Product in accordance with written instructions and specifications or recognized industry standards and practices. In no event shall the Manufacturer be held liable for damages and/or for special, incidental, indirect, punitive or consequential damages. The Manufacturer's liability on any claim of any kind for any loss or damage arising out of, in connection with, or resulting from the manufacturer, sale or resale of the Product shall not exceed the original purchase price of the Product.
3. **Sole and Exclusive Warranty:** This Warranty is exclusive and replaces all other warranties, whether express or implied, including the implied warranties of merchantability and fitness for a particular purpose or use. No employee, agent, or representative of the Manufacturer has authority to make or give any other warranty or vary any of the terms or conditions of this Warranty. No statements made in any of the Manufacturer's brochures, pamphlets, flyers, website, advertisements, or promotional materials of any kind constitute a warranty other than as set forth herein.
4. **Coverage Exclusions:** This warranty does not cover problems with non-defective product caused by conditions or handling beyond the manufacturers control. The following are conditions that are excluded from this Warranty:
 - (a) Damage or leaks caused by;
 - I. penetrations through the product (This includes penetrations by fasteners);
 - II. natural forces, including but not limited to; gale-force winds, lightning, hail, fire, hurricanes or other similar natural causes.
 - III. improper or faulty product installation, and or damage caused by alterations or repairs made after completion of the roof, including installation of structures, fixtures or utilities on or through the roof;
 - IV. environmental fallout or overexposure to commercial industrial solvents, acids, caustic fluids, oils, waxes, gasses, absorbent clays, bleaches or plasticizers;
 - V. objects falling on the roof (e.g. tree branches);

- VI. materials storage on the roof, or by excessive foot traffic on the roof;
- VII. failure of the underlying roofing structure resulting from defective design, improper construction, incorrect installation,
- VIII. settlement and or movement of the roof deck or roof accessories, including but not limited to vents, drains, curb units or other roof components;
- IX. ponding water or the absence of positive drainage within the warranted roof area;
- X. improper or inadequate roof ventilation, or infiltration or condensation of moisture in, through, around, or above the walls of the building. This includes mold growth caused by inadequate ventilation or moisture that exists in the building or that enters the building prior to or after the installation of the Product;
- XI. vandalism, animal abuse, acts of war or civil disturbances;
- XII. any other cause beyond the manufacturers control.

- (b) Color variations or fading of the product facer as the result of normal weathering or atmosphere conditions are cosmetic only and will not significantly affect the products performance or ability to shed water;
 - (c) Cost of remediation or removal of hazardous materials, asbestos, mold, fungus, or any other contaminants;
 - (d) Loss of profits or damage to business reputation, including costs associated with removing or replacing primary roofing materials;
5. **Notice & Claim Procedure:** The Building Owner shall notify the manufacturer of any potential claims under this Warranty within thirty (30) days of noticing a problem. You may report a claim by e-mail, fax or mail to FT Synthetics Technical Service Department per the contact information provided below. You will be required to provide proof of the date your FT Synthetic product was installed and that you were the owner of the property at that time. Your claim should describe the problem in detail and include pictures of the defective product. FT Synthetics may require you at your expense to send in a sample of the product in question for testing. All claims will be evaluated and resolved in a timely manner after proper notification, and in accordance with the terms of this limited warranty. FT Synthetics reserves the right to reserve warranty claim judgment pending a full field evaluation if it deems necessary. All correspondence regarding warranty claims to be sent to:

FT Synthetics Inc.
Attention: Warranty Department
Unit 1 13120-76th Avenue,
Surrey BC Canada V3W 2V6
E-mail: warranty@ftsyn.com;
Call toll free USA & Canada at 1-844-353-9839

6. **Non-Transferrable:** This Warranty applies to the original purchaser (Building Owner) only and is not transferred upon change of ownership of the building.
7. **Jurisdiction:** Any claim or dispute between the Building Owner and FT Synthetics arising out of this Warranty or relating to any material supplied by FT Synthetics shall be resolved in the provincial courts of British Columbia, Canada.
8. **Enforceability:** If any of the terms contained herein are unenforceable, such term shall be limited only to the extent necessary to make it enforceable, and all other terms shall remain in full force and effect.

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Rev. 030718

FT Synthetics Inc.
Unit 1-13120 - 76th Avenue
Surrey, BC V3W 2V6, Canada
www.ftsyn.com 1-844-353-9839

SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: FT Synthetics Inc.
Address: Unit 1-13120 76th Avenue
 Surrey, B.C., Canada
 V3W 2V6
Toll Free: 1-844-353-9839
Phone Number: 604-594-3439
Website: www.ftsyn.com
Product Name: FT Synthetics PRO-20, SILVER, GOLD and PLATINUM
Chemical Family: N/A
Other Information: OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Material Safety Data Sheets do not apply to this product. This product is excluded as an article. Information on potential hazards associated with product fabrication and/or installation are discussed in this datasheet.

SECTION 2. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: This product has no known adverse effect on human health. Additives in this product do not present a respiration hazard / Contact Hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled. No hazardous ingredients by OSHA and WHMIS criteria

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Ingredient	Conc. (%)	CAS No.
Polypropylene	75-80	9003-07-0
Polyethylene	0-5	9002-88-4
Antislip Polymer Ingredient	5-15	24937-78-8
Polyethylene based color Master batch	1	9002-88-4

SECTION 4. FIRST AID MEASURES

General advice: No hazards which require special first aid measures

SECTION 5. FIRE-FIGHTING MEASURES

Flammable Properties

Flash point: not applicable
Thermal decomposition: ca. > 200 °C (> 392 °F)

Fire and Explosion Hazard: Burning is accompanied by melting and dripping which may cause the fire to spread.

Firefighting Instructions: Hazardous combustion products Carbon monoxide Carbon dioxide (CO₂).
 Wear self-contained breathing apparatus and protective suit. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SAFETY DATA SHEET (Continued)

SECTION 6. ACCIDENTAL RELEASE MEASURES

Note: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Cleanup not applicable

SECTION 7. HANDLING AND STORAGE

Handling Procedures: When handling uncontained material, use personal protective equipment as described in Section 8 of this SDS.

Storage Procedures: Store material in accordance with instructions on the product packaging, if any. Material should be kept clean, dry, and in original packaging. Keep this product away from heat, sparks, ignition sources, and open flames in accordance with applicable laws and regulations.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Primary Route of Exposure: Skin Contact

Exposure Effects: None Known

Spill Procedure: N/A

Disposal Procedure: Follow federal, provincial/state and municipal regulations for waste disposal.

Gloves: Recommend to wear protective gloves when handling these products.

Eye Protection: Use safety glasses when needed

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A

Specific Gravity: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Solubility in Water: Insoluble

Appearance: Sheet Material

Odor: Odorless

Melting Point: 160-177 CSECTION

SECTION 10. STABILITY AND REACTIVITY

Hazardous decomposition: Carbon monoxide, Carbon dioxide products

SECTION 11. TOXICOLOGICAL INFORMATION

Further information: This product has no known adverse effect on human health.

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information: This product has no known eco-toxicological effects.

SAFETY DATA SHEET (Continued)

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of waste material in accordance with Federal, State, and Local environmental regulations. Where possible recycling is preferred to disposal or incineration

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

International Regulations: These products are not considered articles per international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

U.S. Federal Regulations:

TSCA: None

CERCLA: None

SARA

Section 302: None of the product components are listed under this section

Section 311/312: None of the product components are listed under this section

Section 313: None of the product components are listed under this section

State Regulations: None

SECTION 16. OTHER INFORMATION

Date of Preparation: May 5, 2016

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.