FESTER ACRITON® PROSHIELD MAX 12 AÑOS

Water-based, fast-drying, early rain-resistant 100% acrylic elastomeric waterproofing with fiber reinforcement.

Fester Acriton® Proshield Max is the new generation elastomeric waterproofing coating that achieves the optimal balance of mechanical properties such as elongation, tensile strength and wear resistance. Additionally, it boasts extra-fast drying and early-rain resistance providing unique advantages while offering the highest durability.

PRODUCTO CERTIFICADO ONNCCE NMX-U-125-SCFI-2016

NOM ONNCCE NOM-018-ENER-2011

EXTRA FAST DRY · WATERPROOFING ALL YEAR ROUND · BETTER RESISTANCE · COOL ROOF · ECO-PURE TECHNOLOGY

USES

- To waterproof both flat and slope concrete roofs.
- To waterproof roofs made of metal sheets
- To waterproof insulation sheets of polystyrene, and polyurethane foam with prior application of the primer **Fester Acriton® Sellador**.
- Used as a reflective coating when apply white product.
- For the maintenance of aged waterproofing systems based on bituminous prefabricated membranes with gravel finishing, acrylic coatings and other asphaltic coatings with prior application of the primer **Fester Acriton® Sellador**.

ADVANTAGES

- With its extra-fast drying property, even in white, it dries faster than other products of its kind under the same conditions, therefore the first coat can be walked on after 150 minutes to continue with the application of the second coat. It allows to complete the application process in just 3.75 hours, thus achieving significant time and labor savings.
- When applying white product, solar radiation is reflected reducing roof temperature making more comfortable interiors, and this might drive to savings in energy consumption since air conditioning and/or ventilation systems are used less frequently.
- It can withstand unexpected rain (up to 6.5 mm accumulated over an hour per square meter of surface) on the first or second coat just 30 minutes after the application when apply 1 L/m^2, at the rate of 1.8 L/m^2 is takes 45 minutes, preventing product losses due to runoff and delays.
- It contains a high content of synthetic fibers, which reinforce the system, significantly improving its performance.
- **Fester Acriton® Proshield Max** has the best mechanical properties balance, allowing it to optimize its performance against moderate structural movements. This means that cracks and fissures can move without causing breaks in the waterproofing system.
- It maintains its elongation and flexibility over time, even when exposed to adverse weather conditions such as rain, UV rays, cold, drought, dust, among others without becoming rigid or brittle.
- Due to its high witness and reflectivity which are maintained over time, **Fester Acriton® Proshield® Max** prevents roofs from overheating. Additionally, it is easy to clean so that dust or particles deposited on the system can be removed using damp cloths.
- **Fester Acriton® Proshield Max** technology does not have ammonia odor, therefore there is not discomfort during application making it more user and eco-friendly.
- It can withstand moderate pedestrian traffic compared to other acrylic waterproofing products in the market, making it suitable for areas with occasional pedestrian traffic.
- With Eco-Pure Technology, there is not leaching when in con-

tact with rainwater, meaning it does not transfer chemical substances to water sources without affecting potabilization, irrigation, or groundwater recharge accredited by an external EMA laboratory.

- It is the only renewable system in the market. After its 4-year lifespan, a maintenance coat can be applied extending its lifespan or warranty by up to 50% additional to the original, as indicated in the yield section.
- Product ready to use with easy and fast application.
- It adheres to damp surfaces, but not to saturated ones since the surface pores must be as free as possible to enhance adhesion.
- This waterproofing system is resistant to concrete alkalinity and industrial fumes.

1Surface preparation

It is recommended to prepare and repair the surface one day prior to application. Doing so on the same day may result in a

APPLICATION INSTRUCTIONS

time gap between surface preparation and waterproofing system application, potentially causing issues if unexpected rain occurs.

a. For new surfaces.

Remove loose, protruding, sharp, or pointed sections by clearing the surface with a flat shovel. Ensure there are no sections of the surface prone to persistent pooling or mud formation; if there are any, those must be treated with a standard mortar fortified with **Festerbond** or with **Fester CM-200** or **Fester CM-201**. Sweep to remove dust, impurities, and debris. Pass a damp cloth over .

b. For surfaces with an existing waterproofing system.

Remove damaged and loose sections from the existing waterproofing system. Check for areas prone to persistent pooling or mud formation and/or if there are damaged sections from the surface as a result from cleaning process as if there any, treat them as mention in the previous point. Completely remove dust, impurities, and debris. In this case, the surface should be washed by water-blasting and left to dry.

c. For metal sheets surfaces.

Cleaning process must be done using water-blasting, detergent, and/or scrubbing with brushes until impurities are removed. This process must be done regardless of whether it is a new sheet roof, weathered sheet, or one with an existing system. Sections with rust or corrosion must be mechanically treated, and an anti-corrosive primer applied. Gutters should be waterproofed using a bituminous waterproofing system with **Fester Vaportite 550**, as these are sections prone to recurrent pooling and mud accumulation (refer to the technical data sheet).

2. Primer application

On a clean and dry surface, apply one coat of **Fester Acriton® Sellador** undiluted using a brush, plush roller, or airless spray equipment. The approximate yield is 5 m^2/L, which may vary depending on the type of surface, absorption, and roughness. Allow it to dry for a minimum of 30 minutes, depending on environmental conditions, before continuing with the application process.

3. Treatment of critical points

a. Cracks and fissures.

Fill them with **Fester Acriton® Resanador** using a wide spatula . Allow it to dry at least 2 hours depending on the depth of the crack and environmental conditions, so that the repair can be walked on (refer to the technical data sheet).

b. Downspouts, expansion joints, parapets, chamfers, pipe bases, antennas, water tanks, among others.

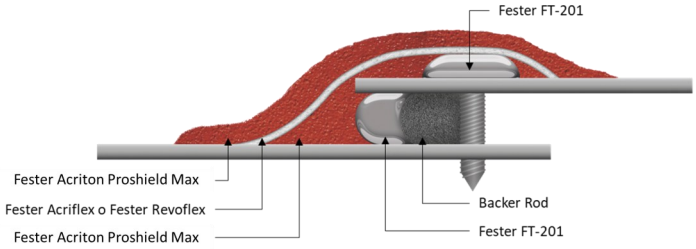
Apply an undiluted and uniform coat of **Fester Acriton® Proshield Max** on the sections to be reinforced and simultaneously place a canvas of **Fester Acriflex** or **Fester Revoflex** ensuring complete coverage of the treated area while avoiding imperfections such as folds or bulges. In sections with highmovement joints, consider reinforcing with a cord of **Fester FT-201**.

c. For metal sheet roofs. Treatment of overlaps, ridges, fastening screws, and gutters.

Overlaps and ridges must be inspected to determine the appropriate treatment. This may involve using **Fester Acriton® Proshield Max** to fill gaps between the sheets, applying it with a brush, and placing reinforcement membrane canvases such as **Fester Acriflex** or **Fester Revoflex**. Alternatively, if the sheets have minimal separations, another option is to use the elastic sealant **Fester FT-201**, suitable for joints with high movement.

For very long roof sheets where expansion is concentrated at few joints or connections, treatment involves loosening the screws of these sheets, separating them, and applying cords of **Fester FT-201**. Then, apply an undiluted and uniform coat of **Fester Acriton® Proshield Max** on the joints and connections and simultaneously place a canvas of **Fester Acriflex** or **Fester Revoflex**. Finally, retight the screws.

For gutters, joints, and downspouts, they can be treated with either **Fester FT-201** sealant or **Fester Vaportite 550**, while laying reinforcement membrane canvases like **Fester Acriflex** or **Fester Revoflex**. The system should be complemented with **Fester Vapotite 550** and **Festalum.**



4.First waterproofing coat

In all cases, application is done using brushes with natural or soft synthetic bristles. Do not use an airless equipment.

a. For surfaces in good conditions.

Apply an undiluted first coat of **Fester Acriton® Proshield Max** in one direction with a minimum consumption rate of 0.9 liters per m². Allow it to dry for 150 minutes before applying the next coat.

b. For metal sheet roofs

It is recommended to use the product in white to prevent damage to the metal structure due to expansion from heating or to avoid creating excessively warm indoor environments. Surfaces must be in good condition, prepared, primed, or sealed, and with the previous treatment of ridges, overlaps, and screws as mentioned in section 3c. Apply the undiluted first coat of **Fester Acriton® Proshield Max** with a consumption rate of 0.5 liters per m². Allow it to dry for 120 minutes before applying the next coat.

C For concrete surfaces with non-moving cracks, apply the system without reinforcement mesh.

Apply 1 coat of waterproofing with a minimum consumption rate of 1.0 liter per m². Allow it to dry for 2.5 hours before applying the next coat.

d. For concrete surfaces with high structural movement.

Where cracks, fissures, and highly dynamic joints commonly occur, such as in slab-steel, compression mortars, brickwork, prefabricated slabs, or highly cracked surfaces, follow these recommendations:

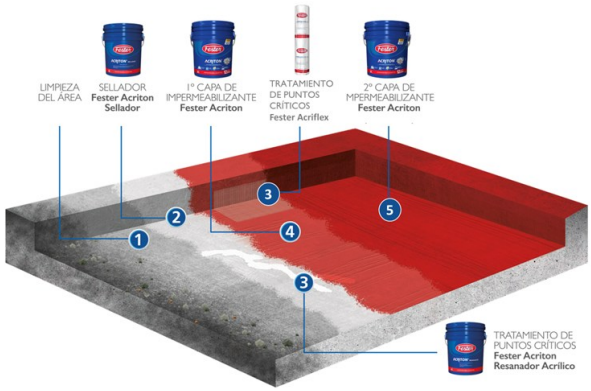
For the entire surface, apply one undiluted first coat of **Fester Acriton® Proshield Max** and simultaneously, place **Fester Acriflex** or **Fester Revoflex** on the whole surface.

The longitudinal and transverse joints of the mesh should be at least 10 cm. Application should be done in one direction. For this first coat, the minimum consumption per m² is 1.0 liter when using **Fester Acriflex** or **Fester Revoflex**. Allow it to dry for a minimum of 2.5 hours before applying the next coat.

Note: The drying times for the first coat in the 4 cases mentioned above are based on sunny days. Otherwise, on cloudy days, failure to allow the product to dry completely may result in the formation of bubbles, especially with red color, due to heat absorption from solar radiation.

5.Second waterproofing coat

Once the first coat of **Fester Acriton® Proshield Max** is dry, apply another undiluted coat of the product using the same technique and consumption rate as the first coat of the selected system. The application should be done in a crosswise direction to the first coat.



Note: The tools and equipment used can be washed with water while the material is still fresh.

Extension of Lifespan or Warranty:

Among the advantages mentioned is the extension of the system's lifespan or warranty by up to 50% additional to the initial warranty. The system's renewal involves applying a single coat of **Fester Acriton® Proshield Max**, except in areas where, due to lack of adhesion or breakage, the system has been removed. In such cases, those areas must be treated with the complete system, following the instructions outlined in steps 1, 2, 3, and 4 in the corresponding section. For the application of the single coat and system renewal across the entire surface, refer to the yield section.

For the purpose of waterproofing renewal, the surface should

be inspected to ensure that at least 70% of the system is in good conditions with optimal adhesion. If the surface does not meet these conditions, opting for a new system is necessary.

Yield for extending the system's lifespan or warranty:

Apply a minimum of 1.2 liters per m² in a single coat, ensuring that the product distribution is as uniform as possible.

YIELD

4a. For concrete surfaces in good conditions.	1.8 liters per m² in two coats
4b. For metal sheet roofs.	1.8 liters per m² in two coats
4c. For concrete surfaces with non-moving cracks (WITHOUT reinforcement mesh)	2.0 liters per m² in two coats
4d. For concrete surfaces with high structural movement (WITH reinforcement mesh)	2.0 liters per m² in two coats with Fester Acriflex or Revoflex

Note: Overall yields may vary depending on the surface roughness, absorption, type of surface, and application technique.

IMPORTANT INFORMATION

- Do not apply **Fester Acriton® Proshield Max** at temperatures below 5°C.
- Do not use it as a waterproofing system to receive tile or brick finishes, or in areas with constant immersion in water .
- Avoid application on surfaces prone to persistent pooling, which could lead to the accumulation of mud, accelerating the degradation of the waterproofing system on those points.
- Avoid applying on wet or saturated surfaces as this may cause bubbles due to the evaporation of trapped water under the waterproofing system.
- For highly dynamic joints and cracks, do not apply the product directly. It is recommended to reinforce using **Fester Acriflex** or **Fester Revoflex**.
- Do not apply it on surfaces poorly adhered to the substrate.
- Do not use it under conditions of constant rolling, vehicular traffic, or heavy pedestrian traffic (only moderate and with flat-soled shoes).
- Do not apply it on weathered insulation foams.
- For metal sheet roofs, it is recommended to use the products in white color because other colors absorb heat and strain the sheets and structures due to expansion caused by sunlight, which can lead to damage to the system, especially at joints and screws.
- The initial warranty and extended warranty are provided in writing for the entire applied waterproofing system exclusively by a specialist from the Fester® Authorized Distributors Network. For more information, consult a specialist from the Fester® Authorized Distributors Network.

PRECAUTIONS

- Do not mix it with other products.
- When dried, the product forms an inert plastic film, meaning it does not harm the environment.
- All safety measures related to working at heights should be taken into account, such as using stairs in optimal conditions, tie-offs, lifelines, harnesses, among others. For work on metal sheet roofs, the use of planks to distribute weight and walk, reducing risks, should be considered.
- It is not toxic, except if ingested.
- When handling the product, avoid direct contact with skin and eyes by using rubber gloves and safety goggles. Refer to the safety data sheet for further information.
- It does not contain mercury-based preservatives, heavy metals, asbestos fibers, nor organic solvents.

PACKAGING AND CONTAINERS

PRESENTATION	19 L Bucket in colors white and red
STORAGE	Store in a cool, dry place, protected from direct sunlight, at a temperature between 15°C and 30°C
SHELF LIFE	24 months
STACKING	19 L Bucket: 3 superimposed pieces

ECOLOGICAL PROPERTIES

Fester Acriton® Proshield Max contributes to prevent environmental quality and the well-being of workers and occupants affection since its VOC content is 5.5 g/L.

Location of production: Carretera Panamericana Km 312. Tramo Libre Celaya-Salamanca, Guanajuato. CP. 36700.

PHYSICAL PROPERTIES

PROPERTY	METHOD OR REFERENCE	SPECIFICATION
Apperance	ASTM E-284	Creamy product in both white and red
Density @25 °C, [g/mL]	ASTM D-1475	1.290 to 1.350
Solid content by mass [%]	ASTM D-2369 mod.	61.0 to 63.0
Brookfield viscosity[cP]	ASTM D-2196	40,000 to 45,000
Touch-free time,20-mil wet @25 °C, 50 % R. H. [minutes]	ASTM D -1640	30 to 40
Total drying time,20-mil wet @25 °C, 50 % R. H. [minutes]	ASTM D-1640	Maximum 90
Accelerated Weathering in QUV with UV light, condensation, and spray [hours]	ASTM G-53	Minimum 4,380 hours; meets without damage
	NMX-C-450-2019	Minimum 2,000 hours; meets without damage
Elongation after weathering [%]	NMX-C-450-2019	Minimum 200
Tensile strength after weathering [psi]	NMX-C-450-2019	Minimum 350
Cold bend on conical mandrel [°C]	NMX-C-450-2019	Meets at -15 °C
pH [ad]	ASTM E-70	Minimum 9.5
24-month stability	ASTM D-1849	Meets

ENERGETIC PROPERTIES OF THE PRODUCT IN WHITE COLOR

PROPERTY	METHOD OR REFERENCE	TYPICAL VALUE FESTER ACRITON PROSHIELD MAX 12 YEARS
Solar Reflectance [%]	ASTM C-1549-09	0.84
Thermal Emissivity Index	ASTM C-1371-04	0.90
Solar Reflectance Index (SRI)	ASTM E-1980-11	106

Note: The included data was obtained under laboratory conditions.

Basic recommendations for achieving the highest efficiency in product application:

1. Carefully read the instructions.
2. Prepare the surface thoroughly.
3. Adhere to the specified yields.
4. Respect drying times according to the weather conditions.

Physical properties acording to NOM-018-ENER-2011

PROPERTIES	REFERENCE	SPECIFICATION	VALUE
Apparent dencity [kg/m^3]	NOM-018-ENER-2011	Complies	1701.87
Permeability [ng/Pa.s.m]	NOM-018-ENER-2011	Complies	0.003
Humidity absortion [%]	NOM-018-ENER-2011	Complies	1.655 % by weight 2.751 % by volumen
Wáter absortion [%]	NOM-018-ENER-2011	Complies	1.309 % by weight
Thermal conductivity [W/m.K]	NOM-018-ENER-2011	Complies	0.1072

Physical properties acording to NMX— U-125— SCFI-2016	
Level or class, according to the norm	**L - 1**
Solar Reflectance Index (SRI), [minimum]	108
Solar Reflectance. [%]	85.5
Emittance	0.89
Contrast Relation	0.99
Difference in whiteness due to soiling, [%]	0.08 %
Declared service life [years]	12

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