



# FESTER ACRITON 4, 6, 8 YEARS

Extra-quick drying, water-based, elastomeric, acrylic waterproofing system with advanced technology for the best mechanical balance; it offers extra-quick drying, as well as hydro repellent and beading properties with Proshield® technology. It complies with the standard NMX-C-450-ONNCCCE-201



Producto Certificado bajo la  
NOM-018-ENER-2011  
**NOM**  
ONNCCCE

### USES

- Fester Acriton® is recommended as a waterproofing system for flat or sloped concrete slabs, but it is also used on sheet roofing, such as metallic and fiber cement sheets, or even on polystyrene thermal finish and polyurethane foam, with prior application of the primer Fester Acriton® Sealant.
- Fester Acriton® in white color is suitable to waterproof and achieve maximum reflectance, isolating sunlight to have more comfortable interiors and significant power savings compared with air conditioning or ventilation systems.
- Due to its properties, Fester Acriton® can be applied for the maintenance of aged systems made of prefabricated, acrylic or even asphalt coatings, prior application of primer Fester Acriton® Sealant.

### ADVANTAGES

- With the new **Proshield®** technology you can know when the Fester Acriton extra-quick drying process is completed due to its hydro repellent and beading properties. Two hours after application, water can be sprayed on the waterproofing to observe the drying speed and hydro repellent effect of Fester Acriton®. These properties are maintained during some time, and gradually incorporated to the waterproof coat, improving the system performance and useful life.
- The best mechanical balance in Fester Acriton® formulation allows optimization of its performance regarding structural movements, so cracks and fissures (except highly dynamic junctions) can move without breaking the waterproofing system, thus reducing repair expenses. Also, its efficiency to resist adverse weather conditions, as rain, UV radiation, cold, drought and dust, is higher. Fester Acriton® does not become rigid or brittle, preserving its elongation and flexibility even in longer periods or subject to weathering tests. Therefore, the waterproofing system endures 4, 6 and 8 years, respectively.

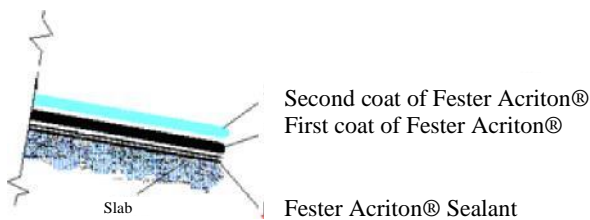


- The improvements and benefits achieved by Fester Acriton® make it the only renewable product in the market, because at the end of its relevant duration, a maintenance coating can be applied, extending its useful time or warranty period up to 50% in relation to its original term (see Performance section).
- Fester Acriton® is characterized for a very low conductivity, so it does not transfer the sunlight heat to the roof surfaces thanks to its high thermal resistance. In construction projects adapted to regional weather conditions, this product works with typical building materials to enhance heat resistance and prevent roofs from overheating.
- In white color, Fester Acriton® has high solar reflectivity (80% minimum), maintaining its whiteness and reflective properties during long periods. With this characteristic and its thermal resistance, this product prevents roofs from overheating, thus reducing the interior temperature and saving power expenses related to air conditioning and ventilation systems.



- Fester Acriton® preserves its extra-quick drying property, so under equal conditions it dries up to 60% quicker than any similar product. Thus, after letting 2 hours for the first coat to dry, you may walk on the area to apply the second coat and complete the system application in one single morning, with significant time savings during the work. Such competitive advantage allows to begin application of Fester Acriton® Sealant at 8:00 am; one hour later apply the first coat of Fester Acriton®, and its second coat 2 hours later, for completing a 100 m<sup>2</sup> surface at 12:00 pm, so if necessary the surface could withstand a rain after 13:00 pm.
- Resistance to moderate pedestrian crossing.
- Resistance to puddles.
- In rainy season, when sudden rain may occur 1 hour after applying the first or second coat, significant savings are made with less product loss due to runoff or time out to re-apply.
- Ready to be used.
- Easy and quick to be applied.
- It adheres to wet surfaces, but not soaked or water-saturated, since the pores must be free to achieve adhesion.
- Resistance to cement alkalinity and industrial fumes.
- Strong waterproofing properties and weathering stability.
- It is not toxic, unless ingested.
- The warranty and extended warranty are supplied in writing for a waterproofing system that had been completely applied only by an authorized expert of Fester® Distributor Network. For more information, consult an authorized expert of the Fester® Distributor Network.

### APPLICATION INSTRUCTIONS



#### 1. Surface preparation

In rainy season, it's advisable to prepare and repair the surface one day before waterproofing, because if such work is done the same day, waterproofing application will be delayed and it may be affected in case of rain in the afternoon.

#### a. New surfaces

- Remove any loose, sharp or edged parts by grubbing the area with a flat shovel.
- Verify there are no zones where puddles may be formed and cause mud accumulation; if found, you must fix them.
- Sweep to remove dust, dirt and trash. Wipe the entire surface over and over with a wet mop to fully remove any persistent dust. If necessary, wash out the area and let it dry to obtain better results.

#### b. Surfaces with an existing waterproofing system

- Remove false adhesions in existing waterproofing, because the new application will depend on its adherence.
- Verify there are no zones where puddles may be formed and cause mud accumulation; if found, you must fix them.
- If cavities or irregularities are formed when removing poorly adhered parts, repair and/or level the affected zones.
- Fully remove dust, dirt and trash. If necessary, wash the area with water-blast and let it dry.

#### c. Sheet surfaces

- On sheet roofs, cleaning shall be done with pressurized water blast, detergent and rubbing with brushes until totally clean, regardless if it is a roof of new sheets (have oils), weathered sheets or an existing waterproofing system. Sections with rust or corrosion shall be mechanically treated and then a suitable anticorrosive primer must be applied. If sheets are degraded, they must be replaced. Gutters shall be waterproofed with Fester Vaportite® 500, as these sections are usually covered with water or mud sediments (see technical sheet).

#### 2. Sealant application

On the clean and dry surface, apply a coat of undiluted Fester Acriton® Sealant with a paintbrush, brush, plush roller or Airless spray equipment. Rough performance is 5 m<sup>2</sup>/liter, which may vary depending on the type, absorption and roughness of the surface. Let it dry 1 to 2 hours (depending on the weather) and continue the application process.

#### 3. Treatment of critical points

##### a. Fissures or cracks.

- We recommend to refill with Fester Acriton® Restorer, that shall be applied with a wide trowel flush to the surface, then let it dry 2 to 4 hours (depending on fissure dimensions), until you can walk on the surface and restoration is not affected (see technical sheet).

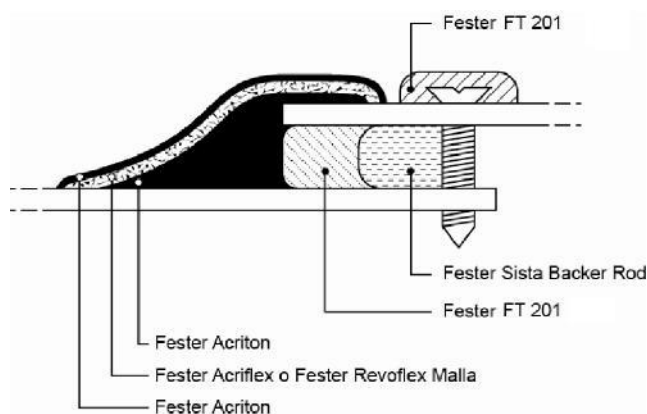


### b. Drain spouts, cold joints, parapets, chamfers, pipe bases, antennas, water tanks and others.

- On the area to be reinforced, apply an even coat of undiluted Fester Acriton® and then immediately lay down a sheet of Fester® Acriflex or Fester® Revoflex® Mesh, so it fully cover the surface to be “treated” and fix any flaws, such as folds or bulging. In areas with high movement, consider reinforcing with Fester® FT 201 cord. Let it dry and continue application.

### c. Sheet roofs, overlap treatment, ridges, attachment screws and gutters.

- On the area to be reinforced, apply an even coat of undiluted Fester Acriton® and then immediately lay down a sheet of Fester® Acriflex or Fester® Revoflex® Mesh, so it fully cover the surface to be “treated” and fix any flaws, such as folds or bulging. In areas with high movement, consider reinforcing with Fester® FT 201 cord. Let it dry and continue application.
- Reinforcement. For industrial units, where the roof sheets are very long and expansion is focused on some overlaps and joints, treatment should be to loosen such sheets, separate them and apply Fester® FT 201 P cords. The objective is the cords between two sheets will work as a bellow and absorb the movement caused by expansion in those points. Next, a parallel sealant cord may be applied in the sheet joint to work as a bridge and support for the bellow. When finally the supporting membrane is placed on the overlap with Fester Acriton®, the risk of reinforcement break caused by the sheet expansion movement will be reduced.
- The screws must be re-tightened and then covered with caps formed with the same Fester Acriton® product. In this case



you may also use Fester® FT 201 sealant. When considering a reinforcement treatment, be careful not to exceed the tighten of the screws to avoid complete “closing” of the joint as that would hamper the bellow.

- The gutters, overlaps and drain spouts can be treated with Fester® FT 201 sealant or Fester Vaportite® 550, after placing Fester® Acriflex or Fester® Revoflex reinforcement membrane sheets; these elements must be complemented with Fester Vaportite® 550 and Fester® Festalum®.

### 4. First waterproofing coat

- a. For surfaces in good conditions, on previously prepared area apply the first coat of undiluted Fester Acriton® following one single direction, with performance of 0.5 liters per m<sup>2</sup>. **Note:** this amount is the minimum to be applied. Application can be done with brushes or paintbrushes with natural, synthetic, soft bristles or Airless spray equipment. Let it dry 2 hours before applying the next coat.
- b. For sheet roofs, we recommend to apply white-color product to avoid heating that can damage the structure due to expansion, or derive in too warm interior conditions, with the same performance as indicated in section a).
- c. Fester Acriton® optimization, with aforesaid benefits, allows such performance boost that, on cracked concrete surfaces (except highly dynamic joints and cracks), the product can be used without supporting mesh. In this case, the performance of the first coat is 0.75 liters per m<sup>2</sup>. Let it dry 3 hours before applying the next coat.
- d. For concrete surfaces with high structural movement, where fissures, cracks and very dynamic joints are common, or with risk of fissure formation, such as slabs, steel, compressive mortars, brickworks, prefabricated slabs or very cracked slabs, follow these recommendations:

After preparing and priming the surface, apply the treatment for cracks, fissures, joints and other critical points as indicated in item No. 3, as applicable.

Apply the first coat of undiluted Fester Acriton® all over the surface evenly, respecting the performance specification. In each segment place Fester® Acriflex or Fester® Revoflex Mesh laying it down to cover 100 % of the area to be waterproofed. Avoid folds or bulging on the membrane. The longitudinal and transversal overlaps of the mesh must be 10 cm minimum. Application must follow one single direction, using brushes or paintbrushes with natural, synthetic, soft bristles (at this point



avoid the use of spray and, in general, of rollers). For this first coat, the performance is 0.75 liters per m<sup>2</sup> (minimum amount to apply). Let it dry 3 to 4 hours, and then apply the next coat. (The bottom layer must be dry to avoid bubble formation due to moisture).

**Note:** Drying times for the first coat in the 3 aforesaid cases are estimated in sunny day. Otherwise, in cloudy days it is possible the product is not totally dry, having a risk of bulging (bubbles), especially in red-color product, due to heat absorption of solar radiation.

### 5. Second waterproofing coat

Once the first coat of Fester Acriton® is dry, in which supporting membrane could or could NOT be used as in aforesaid cases (consistent with surface conditions 4.a, 4.c or 4.d), apply the second coat of undiluted Fester Acriton® with same technique and performance as the first coat. Application direction shall be transversal to the first coat. **Note:** The tools and equipment used can be washed with water while the material is fresh.

#### Extension of useful life or warranty.

Among the advantages of this product, one is the extension of the system useful life or warranty up to further 50% linked to the quality (years) of the originally applied product. The system renewal consists in applying one single coat of Fester Acriton®, except in the points where, due to lack of adhesion or cracking, the system has been removed. Those places shall be treated with a complete system, following instructions in steps 1, 2, 3 and 4 of the corresponding section. To apply the single coat and system renewal on the whole surface, follow the performance section.

For purposes of waterproofing system renewal, the surface shall be examined and at least 70% of the system must have good conditions and optimal adhesion. If the areas do not meet these conditions, a new system shall be applied.

According to surface conditions, as indicated in these points:

#### CONSUMPTION

- 4.a and b. We recommend applying at least 1 liter per m<sup>2</sup> in two layers.
- 4.c. We recommend applying at least 1.5 liter per m<sup>2</sup> in two layers.
- 4.d. We recommend applying at least 1.5 liter per m<sup>2</sup> in two layers

#### Performance for extending the system useful life or warranty:

- We recommend applying at least 0.65 liters per m<sup>2</sup> in one layer, being careful to distribute the product evenly.
- Aforesaid performance in this last case is equal to: 200 L Barrel for 300 m<sup>2</sup>; 19 L Bucket for 29 m<sup>2</sup> and 4 L Bucket for 6 m<sup>2</sup>.

In general, performances may vary depending on the roughness, absorption, surface type and application technique.

#### IMPORTANT INFORMATION

- Do not place as waterproofing system to be covered by tile or brick finishes, nor in sites with constant water immersion.
- Avoid application on areas tending to form enduring puddles that result in mud formation, because these factors accelerate degradation of the waterproofing system in such points.
- Avoid applying on wet or water-saturated surfaces, as this can cause bulging (bubbles) due to evaporation trapped under the waterproofing system.
- For sheet roofs we recommend white-color products because with other colors the sheets and structures move due to the expansion experienced when heated by the sun and damage the system, especially at overlaps and screws.
- In highly dynamic joints and cracks, do not apply the product directly; we recommend to reinforce using Fester Acriflex or Fester Revoflex Mesh.
- Do not apply on surfaces poorly adhered to substrate.
- Do not apply on weathered isolating foams.
- Do not use it in conditions of circulation, vehicular traffic, pedestrian crossing (only moderate and with flat sole shoes).
- Do not mix it with other products.
- Do not apply Fester Acriton® at temperatures under 5° C.

#### PRECAUTIONS

- All safety measures for working at heights must be taken into account (Including ladder in optimal conditions, fastenings, life cords, harness, among others). In sheet roofs, we recommend using planks to make “bridges” and walk on them to reduce risks when working.
- Application of this product must be done in “open” areas, this is, outdoor surfaces.



- If handled in closed areas, a gas mask shall be used because the product contains ammonia.
- If liquid product must be handled, avoid direct contact with skin and eyes using rubber gloves and safety glasses (see the safety sheet).

## ECOLOGICAL FEATURES

- Water-based
- Water-based, surfactant product with biodegradable polymers.
- Does not have mercury preservatives.
- Does not contain heavy metals, such as lead and chromium.
- Does not have asbestos fibers.
- The product does not contain solvents.
- Once the product is dry, it forms an inert plastic film; this means it does not affect the environment.

Fester Acriton® helps to enhance the quality of environment and the well-being of workers and residents since its VOC g/l content is as indicated in the following table:

CONTAINER AND PACKAGING	
STORAGE	Keep in a cool and dry place, protected against sunlight, at a temperature of 15 °C – 30 °C.
EXPIRATION	24 months
MAXIMUM STOWAGE	4L can: 5 pieces one on top of the other 19L bucket: 3 pieces one on top of the other 200L Barrel: 4 pieces per pallet

Availability	4 years	6 years	8 years
4L can	White and red colors	Not available	White and red colors
19 L bucket	White and red colors	White and red colors	White, red and green colors
200 L bucket	Not available	White and red colors	White and red colors

Product's Name	VOC (g/l)
Fester Acriton® 4, 6 and 8 years white	0.53
Fester Acriton® 4, 6 and 8 years red	0.66

Production site: Carretera Panamericana Km 312. Tramo Libre Celaya-Salamanca, Guanajuato. CP. 36700.



**PHYSICAL AND CHEMICAL PROPERTIES**

PROPERTY	ASTM REFERENCE	SPECIFICATIONS	TYPICAL VALUE Fester Acriton® 4 years	TYPICAL VALUE Fester Acriton® 6 years	TYPICAL VALUE Fester Acriton® 8 years
Density, [g/cc]	D - 1475	1.28 -1.36	1.30	1.30	1.34
Solid % in Weight [%]	D - 2369 mod.	57.0 – 61.50	58.50	60.0	61.0
Brookfield Viscosity, [Cps.]	D- 2196	Approval: 44,000 – 34,000 - 39,000	36,000	36,500	36,000
		Settled: (at 15 days) 42,000—55,000	41,000	43,000	42,000
Contact drying, (20 wet mils). [Minutes, maximum]	D -1640	90	55	55	53
Total Drying, (20 wet mils ) [Hours]	D -1640	2.5 h max.	2 h	2 h	2 h
Accelerated weathering (QUV, ultraviolet light condensation and spraying).	G - 53	Compliance without damage after:	1,460 hours	2,190 hours	2,920 hours
Elongation after weathering, [%]	D - 2370	200 Minimum	> 200	> 250	> 350
Stress after weathering [psi]	D - 2370	Minimum (psi)	> 500	> 500	> 600
Flexion in cold at -15 [°C]	C- 711	Complies	Complies	Complies	Complies
pH @25°C, minimum	E - 70	10.5	10.5	10.6	10.65
24-month stability	D - 1849	Complies	Complies	Complies	Complies
Solar reflectance,[ %]	C -1549 - 09	Depending on product	80.70	80.50	84.90
Thermal emittance, index	C - 1371 - 04	Minimum 0.86	0.90	0.90	0.90
Solar Reflectance Index (SRI), (estimate)	E – 1980 - 11	Depending on product	101	101	107

**PHYSICAL PROPERTIES NOM-018-ENER-2011**

PROPERTY	REFERENCE	SPECIFICATION	TYPICAL VALUE Fester Acriton® 4 years	TYPICAL VALUE Fester Acriton® 6 years	TYPICAL VALUE Fester Acriton® 8 years
Apparent density [kg/m³]	NOM-018-ENER-2011	Complies	1749.9	1729.9	1707.25
Permeability [ng/Pa.s.m]	NOM-018-ENER-2011	Complies	0.005	0.005	0.004
Humid absorption [%]	NOM-018-ENER-2011	Complies	3.15% in mass 5.48% in volume	2.92% in mass 5.05% in volume	3.17% in mass 5.35% in volume
Water absorption [%]	NOM-018-ENER-2011	Complies	5.16% in mass	5.16% in mass	3.84% in mass
Thermal Conductivity [ W/m.K]	NOM-018-ENER-2011	Complies	0.162	0.122	0.132



## STANDARD NMX-C-450-ONNCCE

PROPERTY	SPECIFICATION OF STANDARD NMX - C - 450 - ONNCCE,- 2010	Fester Acriton® 4, 6 or 8 years
Brookfield Viscosity, [Cps.]	15,000 – 50,000 with Viscometer RVT 10 rev /minute, needle 4 and 6	Complies
Stability in shelf	Homogeneous, without surface film formation, clots, dusts, foreign particles or sediments affecting its homogeneity, nor decay characteristic odor.  The viscosity must comply the ranges set in the standard.	Complies
Maximum permeability [perms]	50 perms	Complies
Wet adhesion, minimum [g/linear cm]	357.16 g/linear cm (2.0 pounds per linear inch) in trial substrate.	Complies
Water absorption, in weight [%]	20% maximum after 168 hours	Complies
Accelerated weathering*	Accelerated weathering chamber, UV-B 313 nm. For 8 years product, 1,720 hours. Without prominences, softening, cracking or any other evidence of deterioration, including a slight loss of brightness.	Complies
Tensile strength	After accelerated weathering, minimum 200 pounds. New values must be included	Complies
Elongation to crack	After accelerated weathering, minimum 100% without cracking. New values must be included	Complies
Whiteness and dirtiness	Initial minimum 82.0 and final value 53.0	Complies
Flexibility at low temperature	At -10°C with 1/2" rod mandrel and 180° bend. It must not show cracking nor separation between coats.	Complies

\* The standard refers to 3, 5 and 7 years. However, as this Fester Acriton® technical sheet refers to 4, 6 and 8 years, the corresponding time is proportionally applied to pertinent tests.

**Note:** Aforesaid data were obtained under conditions of HENKEL laboratory.

### BASIC RECOMMENDATIONS TO OBTAIN THE BEST PERFORMANCE WHEN APPLYING THE PRODUCT

1. Read instructions carefully
2. Prepare the surface thoroughly
3. Respect the specified performance
4. Respect the drying times according to the weather



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The previous information, particularly the recommendations to handle and use our products, is based on our professional knowledge and experience. Since materials and conditions may vary in each application and thus are beyond our sphere of influence, we recommend performing enough tests to confirm the suitability of our products for intended application method and use. No legal liability may be accepted based on this data sheet contents or verbal advice provided, unless there is evidence of deceit or serious negligence on our part. This technical data sheet supersedes any previous editions for this product and is complemented by the data in the relevant safety sheet. We recommended reviewing the safety sheet before applying this product.