



FESTER ACRITON PROSHIELD 4 YEARS

Extra quick-set, water-based elastomeric acrylic waterproofing with hydro-repellent technology

Fester Acriton Proshield® is an elastomeric waterproofing of the latest generation product that attains an optimal balance of elongation, tension and wear resistance. Ideal durability and extra quick-set allows users to complete waterproofing in a single morning

USES

- **Fester Acriton Proshield®** is recommended for waterproofing horizontal or inclined concrete slabs, but it can also be used on metal roofs and fiber-cement, and even polystyrene and polyurethane thermal foam panels after coating with **Fester Acriton® Sellador**.
- **Fester Acriton Proshield®** in white color is recommended for waterproofing where maximum reflection of solar radiation is required in order to keep interiors cooler and more comfortable, while also bringing significant savings in electricity consumption of air conditioning or ventilation systems.
- Due to its properties, **Fester Acriton Proshield®** can be applied for maintenance of existing systems made from precast material, acrylic or even over asphalt carpets after coating with **Fester Acriton® Sellador**.

ADVANTAGES

- The formulation of **Fester Acriton Proshield®** provides the optimal balance of mechanical properties, ensuring uniform performance with structural movements. As such, cracks and fissures (except for highly dynamic joints and cracks) can move without breaching the waterproofing system, thereby reducing subsequent repair expenses. Moreover, Fester has improved **Fester Acriton Proshield®** performance over time, making it even more resistant to adverse climatic conditions such as rain, UV rays, cold, drought, dust, among others. Weathering tests demonstrate that **Fester Acriton Proshield®** does not become rigid or brittle and it retains its elongation and flexibility properties even after **4 years**.
- The improvements in **Fester Acriton Proshield®** make it the only renewable waterproofing product on the market, since at the end of the installed service life, a new coating of the product can be applied directly over the older layer, thereby



extending its useful life and warranty by up to 50% over the original product (see yield section).

- The product is characterized for its very high thermal resistance and low conductivity, in other words, it does not conduct heat from the sun's rays into the surface of the roof. 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 Proshield®** provides high solar reflectivity (80% minimum) and retains white color over time and the reflective property. This high reflectivity and thermal resistance allow the product to resist overheating of roofs thereby reducing the temperature of the interiors, which in turn brings considerable savings in electricity consumption for air-conditioning and ventilation.



- **Fester Acriton Proshield®** is still extra quick-set. Under equal conditions, it dries up to 60% faster than any product of its kind. In this way, only 2 hours after application of the first coat, you may walk on the area to apply the second coat and complete the system application in one single morning. This accelerated process brings you significant time and money savings.
- This competitive advantage allows you to start with the application of **Fester Acriton® Sellador** at 8:00 a.m., and one hour later apply the first coat of **Fester Acriton Proshield®**. After two hours, you can apply the second coat to finish treating a surface of 100 m² by 12:00. Moreover, the coated surface can withstand rain by 13:00 of the same day.
- 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.
- Resists to moderate pedestrian crossing.
- Resistant to puddling
- Ready to use
- Quick and easy to apply
- Adheres to moist or dry surfaces, but not to wet or saturated surfaces, because surface pores must be open to achieve proper adhesion.
- Resists alkalinity of cement and industrial fumes.
- Non-toxic, unless ingested

*The warranty and extended warranty are provided in writing when the waterproofing system is installed entirely by a specialist of the Authorized **Fester®** Distributors Network. For more information consult a specialist from the Authorized **Fester®** Distributors 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 loose, flaking material or sharp protrusions by scraping the surface with a flat shovel.
- Make sure there are no low areas where long lasting puddles can be formed or that might produce mud. Such low areas must be corrected.
- Sweep the surface to remove dust, impurities and trash. Wipe entire surface repeatedly with moist cloth to fully remove any persistent dust. For best results, wash the surface and allow it to dry.

b. Surfaces with existing waterproof system

- Remove loose, flaking material of the existing waterproofing system to ensure proper adhesion of the new coat.
- Make sure there are no low areas where long-lasting puddles can be formed or that might produce mud. Such low areas must be corrected.
- If when removing the flaking, loose material, you find cavities or irregularities, make sure to repair and/or re-level the affected areas.
- Sweep the surface to remove dust, impurities and trash. For best results, wash the surface and allow it to dry.

c. Metal sheet roofs

- On sheet roofs, cleaning must be performed using a pressure washer, detergent and by scrubbing with brushes to ensure the surface is completely clean. This cleaning is required regardless of whether the roof sheets are new or old, since new metal sheets are often quite greasy. Metal sheet sections with rust or corrosion must be cleaned mechanically and anti-corrosive primer coat must be applied. Severely degraded sheets must be replaced. Gutters must also be waterproofed with **Fester Vaportite® 550** system, as these sections are usually covered with water or mud sediments (see technical data sheet)

2. Applying sealant

Using a brush, roller or spray gun, apply a coat of undiluted **Fester Acriton® Sellador** to the surface. Approximate yield is 5 m²/liter, which can vary depending on the surface type or roughness and absorption properties. Let sealant coat dry for 1 to 2 hours (depending on the weather) and continue with the waterproofing application process.

3. Reinforcing critical points

a. Fissures or cracks

- We recommend filling cracks and fissures with **Fester Acriton® Resanador**, applying the product with a wide spatula and smoothing flush with the surface. Allow patching compound to dry for 2 to 4 hours (depending on the size of the fissure) until patched area is not affected when treading on it (see technical data sheet).

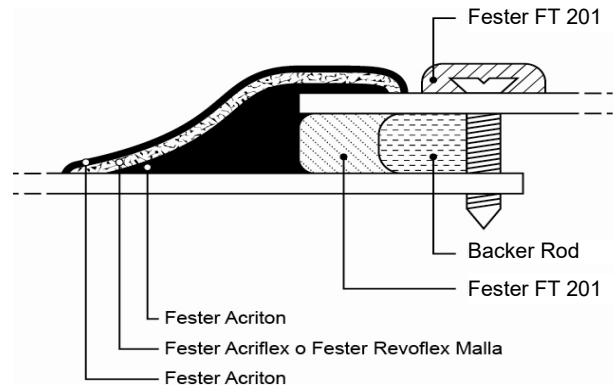
b. Down spouts, cold joints, parapets, chamfers, pipe bases, antennas and cisterns, among others.

- Apply a uniform coat of undiluted **Fester Acriton®** to critical area and immediately lay in sheets of **Fester® Acriflex** or **Fester® Revoflex® reinforcement meshes** in such a way that the entire critical area is covered. Smooth out the mesh to eliminate folds or wrinkles. Consider reinforcement with **Fester® FT 201** in areas subject to higher movement. Let product dry and proceed with the waterproofing application.

c. Sealing metal sheet roof overlaps, roof ridges, fastening screws and gutters.

- Overlaps and roof ridges should be checked to determine optimal product treatment. **Fester Acriton Proshield®** can be used between sheets, applying product evenly with brush and laying in sheets of **Fester® Acriflex** or **Fester® Revoflex** reinforcement meshes.
- Where metal sheet sections lay without large separations, **Fester® FT 201** sealant can be used, since it provides optimal elongation properties.
- For industrial buildings using very long roof metal sheets where expansion and contraction is most notable at joints or overlaps; sealing treatment must be done by loosening the fasteners holding these sheets, separating them and applying cords of **Fester® FT 201**. These cords in effect create an expansion joint that absorbs the displacement caused by expansion and contraction of the metal sheet. You may run a cord of sealant parallel to sheet overlap to bridge and reinforce the joint. Finally, by placing **Fester Acriton Proshield®** with the reinforcement membrane on the overlap, the risk of the reinforcement breaking due to expansion and contraction of the metal sheet is reduced.

- The screws must be tightened and capped with **Fester Acriton Proshield®**, you may also use **Fester® FT 201** sealant to cap screws. Where the waterproofing with reinforcement meshes is used, take care not to overtighten screws not to completely clamp down on the joint and thereby hinder the movement of the overlap joint.



- Gutter joints and down spouts can be sealed with the **Fester® FT 201** sealant or with **Fester Vaportite® 550** in conjunction with **Fester® Acriflex** or **Fester® Revoflex** reinforcement meshes. The system must be complemented by **Fester Vaportite® 550** and **Fester® Festalum®**.

4. First waterproofing coat

The first coat can be performed with soft synthetic or natural bristle brooms or brushes, or airless spray equipment for applications without mesh. Never use plush rollers. The product quantities per area are the minimum quantities required.

- For surfaces in good condition: Apply the first coat of **Fester Acriton Proshield®** undiluted on the previously prepared surface, spreading product in one direction at a yield of 0.5 liters per m². Allow coat to dry for 2 hours before applying the next coat.
- For metal sheet roofs: We recommend using white color to avoid heating and consequent expansion of the metal sheet that can damage the roof structure and/or produce elevated temperature inside the building. Surfaces must be in good condition, prepared, primed or sealed, including pre-treatment of roof ridges, overlaps and fastener screws as explained in point 3.c. Apply the first coat of **Fester Acriton Proshield®** undiluted at a yield of 0.5 liters per m².



c. For fissured concrete surfaces without joints and/or highly dynamic cracks and without the use of reinforcement mesh: Apply 2 coats of waterproofing at a yield of 0.75 liter per m² per coat. Allow coat to dry for 3 hours before applying the next coat.

d. For concrete surfaces with high structural movement: Where cracks, fissures and highly dynamic joints commonly exist, (or with risk of fissure formation), such as in structures built of concrete slab, steel, compression mortars, brickworks, prefabricated or very cracked slabs, observe the following 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 Proshield**® over the entire surface evenly, working by sections at recommended yield. Section by section lay down **Fester® Acriflex** or **Fester® Revoflex** reinforcement meshes in such a way that 100% of the area to be waterproofed is covered, while making sure to smooth out folds or wrinkles in the membrane. At longitudinal and transversal joints, the mesh must overlap by at least 10 cm. Application is carried out in one direction.

The first coat is applied at a minimum yield of 0.75 liters per m² with **Fester Acriflex** or 0.6 liter per m² with **Fester Revoflex**. Allow coat to dry for 3 hours before applying the next coat. (The previous coat must be dry to prevent the formation of bubbles of trapped moisture.)

Note: Drying times for the first coat in the 4 scenarios cited are achieved under sunny conditions. On cloudy days, if product is not allowed to dry completely, you run the risk of bubbles forming in the subsequent coat especially in red-color product, due to heat absorption of solar radiation.

5. Second waterproofing coat

For the surface conditions described 4.a, 4.b, 4.c or 4.d, once the first layer of **Fester Acriton Proshield**® is applied in conjunction with reinforcement membrane, proceed to apply the second coat of undiluted **Fester Acriton Proshield**® using the same technique and yield as that used in the first coat. This coat must be applied in a crosswise direction with respect to the first coat.

Note: Tools and equipment used can be washed with water while product is still 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® Proshield**, 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 yield 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.

YIELD

For the surface conditions based on the points:

- For 4a and 4b, we recommend applying at a minimum yield of 1.0 liter per m² in 2 coats.
- For 4c, we recommend applying at a minimum yield of 1.5 liters per m² in 2 coats.
- For 4d, we recommend applying at a minimum yield of 1.2 liters per m² using reinforcement mesh **Fester Revoflex** and 1.5 liters per m² using reinforcement mesh **Fester Acriflex** in 2 coats.

Yield for extending the system useful life or warranty:

- We recommend applying at least 0.65 liters per m² in one coat, being careful to distribute the product evenly.
- In general, yields may vary depending on the roughness, absorption, surface type and application technique.

IMPORTANT INFORMATION

- Do not apply **Fester Acriton Proshield**® at temperatures below 5°C
- Do not use as a waterproofing substrate for tile or brick finishes, nor in pools or where there is constant immersion in water.
- Do not apply where on surfaces prone to prolonged puddling or where mud tends to accumulate as these conditions accelerate the breakdown of the waterproofing system.



- Do not apply to wet or water-saturated surfaces, as this can cause water vapor bubbles in the final coat.
- In highly dynamic joints and cracks, do not apply the product without using **Fester® Acriflex** or **Fester® Revoflex** reinforcement meshes.
- Do not apply this product on surfaces that are poorly adhered to the substrate.
- Do not apply on weathered insulation foam.
- Do not use where surface must withstand vehicle or heavy pedestrian traffic. Always use shoes with flat soles when walking on finished surface.
- For metal sheet roofs, we recommend using the white waterproofing product, which reflects heat and thereby reduces the amount of expansion and contraction of the metal sheet and associated structure. Movement due to expansion and contraction of metal can damage the waterproofing system especially at joints and fastener screws.
- Do not mix this product with other products.

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 metal sheet roofs, we recommend using planks to make “bridges” and walk on them to reduce risks when working.
- This product is to be used only outdoors.
- When handling the liquid product, use rubber gloves and safety goggles to prevent direct contact with the skin and eyes.
- This product contains ammonia. Do not handle liquid product in enclosed areas without proper gas mask.

PACKAGING AND CONTAINER

PRESENTATION	19-liter Bucket: in colors white and red 4-liter Bucket: in colors white and red
STORAGE	Keep product in original container in a cool, dry place away from direct sunlight and at a temperature of between 15 °C and 30°C
SHELF LIFE	24 months
STACKING	4L Bucket: Stacks of 5 19L Bucket: Stacks of 3 200L Drum: Stacks of 4

ECOLOGICAL PROPERTIES

- Water based product
- This product is made of water-based polymers and biodegradable surfactants.
- Does not contain mercurial preservatives.
- Does not contain heavy metals such as lead or chromium.
- Does not contain asbestos fibers.
- Does not contain solvents.
- Once dry, the product forms an inert plastic film that does not affect the environment.

Name of product	VOC (g/L)
Fester Acriton Proshield® 4 years in white and red	1.66

Fester Acriton Proshield® 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 previous table.

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



PHYSICAL PROPERTIES			
PROPERTY	METHOD ASTM / NMX- C- 450	SPECIFICATION	TYPICAL VALUE Fester Acriton® 4 YEARS
Appearance	E 284	Creamy product in colors white and red	Complies with
Density, [g /cc]	D - 1475	1.29 to 1.35	1.32
Solids by weight [%]	D – 2369 mod.	58.0 to 60.0	59.0
Brookfield viscosity [Cps.]	D- 2196	As per test: 34,000 to 39,000	36,000
		Resting: (for 15 days): 42,000 to 55,000	46,000
Dry to the touch, (20 mils wet). [Minutes]	D -1640	70 – 90	55
Total drying time, (20 mils wet) [Hours]	D -1640	2.5 max.	2
Accelerated weathering (Ultraviolet light, condensation and aspersion) (Hours)	G - 53	Complies without damage after:	1,460
	NMX – C - 450 - 2019		1,000
Elongation after weathering, [%]	NMX - C - 450 - 2019	% minimum	> 170
Tension after weathering [psi]	NMX - C – 450 - 2019	200 minimum	>500
Conical mandrel cold bending test [°C]	NMX - C - 450 - 2019	-10°C Without fail	Complies with
pH	E – 70	10.0 minimum	10.5
Stability 24 months	D – 1849	Must comply	Complies with
THERMAL PROPERTIES (Applies only to product in white color)			
Solar reflectance, [%]	C -1549 – 09	80 minimum	80.70
Thermal emittance index	C – 1371 – 04	0.86 minimum	0.90
Solar reflectance index (SRI)	E – 1980 – 11	99 minimum	101



PHYSICAL PROPERTIES NOM 018-ENER-2011

PROPERTY	REFERENCE	SPECIFICATION	TYPICAL VALUE Fester Acriton® 4 YEARS
Apparent density [kg/m ³]	NOM-018-ENER-2011	Complies with	1,747.11
Permeability [ng/Pa.s.m]	NOM-018-ENER-2011	Complies with	0.004
Moisture absorption [%]	NOM-018-ENER-2011	Complies with	2.13 by weight 3.712 by volume
Water absorption [%]	NOM-018-ENER-2011	Complies with	2.31 by weight
Thermal conductivity [W/m.K]	NOM-018-ENER-2011	Complies with	0.1340

Note: The data cited herein were obtained under HENKEL laboratory conditions.

BASIC RECOMMENDATIONS FOR GREATEST EFFICIENCY IN THE APPLICATION OF THE PRODUCT

1. Read the instructions carefully
2. Carefully prepare the surface
3. Observe specified yields.
4. Observe drying times in accord with climate



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The information provided in this technical data sheet, specifically the recommendations for proper handling and use of our products, is based on our professional knowledge and experience. As materials and local conditions may vary from place to place, which is beyond our control, we recommend performing tests to determine the suitability of our products for the intended application method and use. Fester shall not accept any legal liability for the contents of this data sheet or for any spoken advice it may provide to users of our products, unless there is evidence -of malicious intent or gross negligence on our part. This technical information sheet replaces all previous editions relevant to this product and is supplemented by the information contained in the corresponding safety sheet. We recommend that you consult the latter prior to using this product.