



FESTER ACRITON GREEN-SHIELD 10 YEARS

Ecological, highly reflective and acrylic waterproofing.

Fester Acriton Green-Shield is an elastomeric, sustainable and environmentally friendly waterproofing made with special additives which provide highly reflective, whiteness and thermal insulation. Additionally, **Acriton Green-Shield** contains recycled plastic aggregates.



USES

Fester Acriton Green-Shield is recommended for:

- Waterproofing all types of horizontal and inclined roofs.
- Slabs or roofs built of poured concrete.
- Sheet metal roofs or shelters.
- Prefabricated roofing systems.
- Thermal insulation systems.
- On roofs or walls for the purpose of waterproofing and/or as a "Cool Roof" system. Thanks to the properties and outstanding reflectivity, Acriton Green-Shield shields against the effects of solar radiation.
- For maintenance of aging waterproofing systems, except asphalt systems that should always be removed.

ADVANTAGES

- Highly reflective white finish that endures over time helps maintain cooler temperatures in building interiors, thereby generating substantial savings in electric power needed for air conditioning or ventilation.
- Contains hollow microspheres and other additives, which in addition to producing an intense white finish contribute to both reflectivity and thermal insulation.
- Helps to create more comfortable environments in building interiors, while serving to reduce the Urban Heat Island effect.
- The formula contains plastic aggregates from recycled bottles, which serves to make use of resources in a circular economy.
- *Eco-Pure Technology* does not allow leaching of chemical substances into rainwater that could otherwise adversely affect the potability and/or the quality of irrigation water and runoff moving to the water table. Certified by an EMA laboratory.
- Mild odor, does not contain substances or solvents that cause irritation during application.
- Quick drying technology. Check drying times in the application instructions section.
- Maintains its impermeable qualities, elongation, tension, flexibility, whiteness, reflectivity and solar reflectivity index (SRI) over time
- 10-year warranty. Consult your Fester distributor and for more information visit: www.fester.com.mx
- Very low conductivity prevents the heat generated by solar radiation from being absorbed by roofing system, thereby preventing overheating of roofs and interiors.
- In sheet metal roofs, **Acriton Green-Shield** helps to reduce expansion due to heat from solar radiation, thereby preventing damage to roof overlaps and anchoring points.
- Protects concrete and mortar by preventing carbonation; and in sheet roofs it prevents oxidation and corrosion. In all cases, it significantly extends the useful life of the roofing system and/or walls.





- Highly resistant in all weather conditions to UV light, drought, heavy rain, extreme heat-cold-cycles and dust.
- Outstanding performance when subjected to movements in structures.
- Efficiently bridges cracks and fissures in concrete roofs (with the exception of highly dynamic joints and cracks).
- Resists moderate pedestrian to traffic.
- Adheres to moist surfaces (not wet or saturated), since the pores must be open to ensure proper adhesion.
- Single component, ready-to-use product.
- Upon drying, it forms an inert plastic film that does not affect the environment.
- Resists alkalinity of cement and industrial fumes.

APPLICATION INSTRUCTIONS

1. Surface preparation

In the rainy season, we recommend performing surface prep one day before application. If surface prep is done the same day application of the waterproof system is planned, this might have to be postponed due to the afternoon or nighttime rain. Rainfall shortly after application will delay drying time.

1.1 New concrete slabs and other porous surfaces

- Remove any loose, flaky material by scraping surface with flat shovel.
- Make sure there are no low areas where water can collect and produce sludge. As required, low area must be corrected.
- Sweep off dust and debris from surface area and wipe entire surface down with a damp cloth repeatedly to remove stubborn dust. For best results, as warranted, wash the surface and allow it to dry.

1.2 Seals and all kinds of sheet metal roofs.

- Sheet metal roofs must be cleaned using a pressure washer and detergent, scrubbing with brushes until a perfectly clean surface is achieved. This procedure must be followed for new and weathered sheet metal roof surfaces.
- Any sections with rust or corrosion must be cleaned mechanically and an anti-corrosion primer must be applied. Severely degraded sheet metal must be replaced.

- Gutters must be waterproofed with the **Fester Vaportite® 550** asphalt system, because gutters are prone to holding standing water and accumulation of sludge. See technical sheet.

1.3 Surfaces with existing waterproofing system

- Remove the sections of the aged waterproofing system are poorly adhered, because the performance of the Acriton Green-Shield depends on positive adhesion.
- Make sure there are no low areas where water can collect and produce sludge. As required, low area must be corrected.
- When upon removing loose, flaking material of the old waterproofing system pits or irregularities are found, repair these and re-level the affected areas.
- Completely remove dust, impurities and debris. Where necessary, wash the surface with pressurized water and allow surface to dry.

2. Application of Fester Acriton Sealant

On the clean and dry surface, apply a coat of undiluted **Fester Acriton Sealant**. Using an Airless spray equipment, paint brush, bristle brush, or medium plush roller. The approximate yield is 5 m²/liter, which may vary depending on the type and roughness of surface, its absorption properties, the ambient temperature as well as the application technique. Allow coat to dry for 1 to 2 hours (depending on the weather) and continue with the application process.

3. Treatment of critical points

3.1 Fissures or cracks in the concrete.

- Following the trajectories of cracks and fissures, make a slight cut using a disc cutter. Remove the dust completely and fill breaches with **Fester Superseal P** or **Fester Acriton Patch Filler** (see technical sheets), using a broad spatula, ensuring hollows are filled completely and level with the surface. Allowing filler to dry for 1 to 2 hours (depending on the size of the fissure), to ensure product is not damaged when treaded.

3.2 In sheet metal roofs: treatment of overlaps, ridge caps, fastening screws and gutters.

- Overlaps and ridge caps should be inspected to determine the treatment needs, which can be performed with **Fester Acriton Green-Shield**, applying the product to fill the gaps between sheets evenly with brush and laying in reinforcing membranes such as **Fester Acriflex** or **Fester Revoflex**.

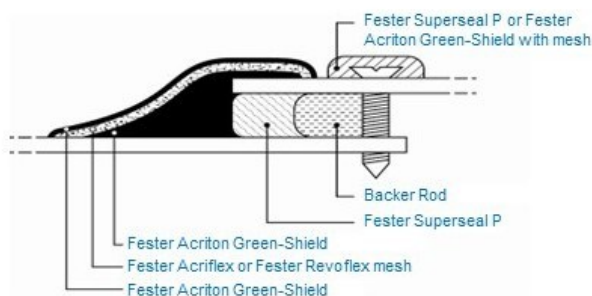


Alternatively, provided there are no significant gaps between sheets, use **Fester Superseal P** sealant, which provides outstanding properties of elongation and fast drying.

3.3 Reinforcements for industrial buildings with very long roof which concentrates expansion a few joints or overlaps.

- Treatment should be performed as shown in the illustration, loosening sheets to achieve separation and apply cords of **Fester Superseal P**. These cords between sheets serve as a sort of expansion joint, dilating and contracting as sheets shift relative to one and other. An additional cord of **Fester Superseal P** sealant can be applied parallel to sheets joint in order to bridge the gap and enhance the action of this expansion joint. In this way, when the reinforcement membrane is finally laid over the joint with the **Fester Acriton Green-Shield**, the chance of the reinforced joint breaking due to expansion/contraction of the adjacent sheets is mitigated.
- Screws must be tightened and capped **Fester Acriton Green-Shield**. **Fester Superseal P** sealant can be used for this purpose. Where reinforcement treatment has been used, make sure not over tighten screws, thereby clamping the joint completely, which will negate the movement of the joint.

REINFORCEMENT OF A CRITICAL POINT IN SHEET METAL



- Gutters, segment joints and downspouts can be treated with **Fester Superseal P** sealant or with **Fester Vaportite 550**, laying in **Fester Acriflex** or **Fester Revoflex** reinforcing membranes. This system must be complemented with **Fester Vaportite 550** and **Fester Festalum** finish. (Consult technical sheets.)

3.3 Downspouts, cold joints, parapets, bevels, pipeline support bases, antennas, water tanks and all kinds of critical points.

- Apply a uniform layer of undiluted **Fester Acriton Green-Shield** to the area to be reinforced and immediately lay in **Fester Acriflex** or **Fester Revoflex** membrane in such a way that entire critical area is amply covered, while ensuring there are no folds or bulges in the membrane. At points subject to substantial shifting, consider reinforcement with a cord of **Fester Superseal P**. Allow product to dry and continue with the application of the system.

4. First waterproofing coat

On the previously primed surface apply uniform a coat of undiluted **Fester Acriton Green-Shield** using a paint brush or bristle brush. Always apply coats of product in one direction.

- 4.1 For slabs or roofs in good condition, previously prepared and primed, apply the first coat of **Fester Acriton Green-Shield**, observing the yields indicated in the instructions.
- 4.2 For cracked concrete surfaces (without dynamic joints or cracks), **Fester Acriton Green-Shield** may be employed without reinforcing mesh, provided cracks are properly repaired.
- 4.3 For concrete surfaces subject to substantial movement, where there are dynamic fissures, cracks and joints or the risk of their formation, such as in slab-steel, compression mortars, brickwork, prefabricated slabs, or slabs with multiple cracks, observe the following recommendations: After proper surface prep and priming is performed, repair cracks, fissures and joints using **Fester Superseal P**, as per the procedure cited in point 3.2. Additionally, the reinforcements must be performed as indicated in point 3.3. Working in sections and observing the indicated yield, apply a uniform first coat of **Fester Acriton Green-Shield** to the entire surface, Simultaneously, lay in **Fester Acriflex** or **Fester Revoflex** mesh over the entire area to be waterproofed, taking to smooth out folds or bulges. The longitudinal and transversal mesh joints must overlap by at least 10 cm. Application should be performed in one direction using a natural or synthetic hair paint brush or bristle brush. On sunny days, allow product to dry for 2 to 3 hours before proceeding with the second coat.

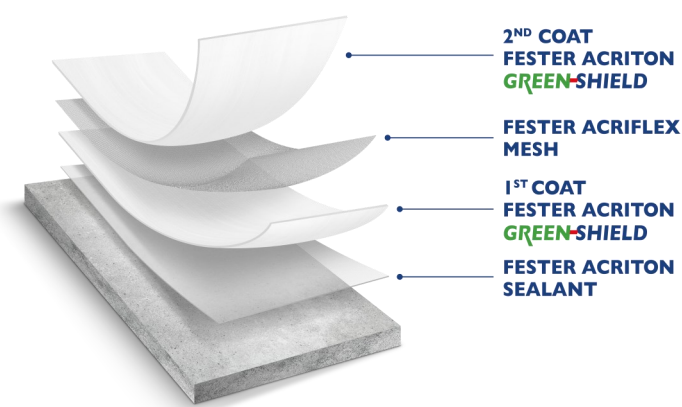


5. Second waterproofing coat

Once the coat layer of **Fester Acriton Green-Shield** dries (with or without reinforcement mesh and as per the conditions of the surface described in 4.1, 4.2 or 4.3), proceed to apply the second coat of undiluted product using same technique and yield. The second coat should be applied crosswise with respect to the first coat.

Note: Before product dries, tools and equipment can be washed with water.

APPLICATION WITH REINFORCING MESH



YIELDS

Recommended yields for the surface conditions described under section 4. Above:

For point 4.1: Apply at least 1 L/m² in two coats.

For point 4.2: Apply at least 1 L/m² in two coats.

For point 4.3: Apply at least 1.2 L/m² when using **Fester Revoflex** reinforcement membrane and 1.5 L/m² when using **Fester Acriflex** reinforcement membrane.

Notes:

- Take into account the 3 surface conditions described under Point 4 of the application section, making sure surface prep is performed properly, which is especially important for the application described in point 4.3. This recommendation does not rule out the use of reinforcement membrane for under points 4.1 or 4.2. If for point 4.1, you decide to use **Fester Acriflex** membrane, the yield to be observed is 1.5 L / m² in 2 coats to ensure membrane is fully coated.

- The yield amounts indicated in each case are the minimums to be applied.
- The yields cited comprise 2 coats and may vary depending on roughness, surface absorption, type of surface and application technique.

IMPORTANT INFORMATION

- Do not use the product as a waterproof system under tile or brick finishes or where surface is constantly immersed in water.
- Do not apply product on wet, highly waterlogged surface areas or where water and sludge can accumulate. Such conditions will accelerate the breakdown of any waterproofing system.
- Do not apply product with spray equipment, since aggregates that can clog sprayer nozzles.
- Ensure older waterproofing system is positively adhered before application of **Fester Acriton Sealant**.
- Avoid applying product to wet or saturated surfaces as evaporation of water trapped under the waterproof coating can cause bulges or bubbles to form.
- Do not apply the product directly to highly dynamic joints and cracks. Reinforce these breaches first using **Fester® Acriflex** or **Fester® Revoflex Mesh**.
- Do not apply on surfaces that are poorly adhered to the substrate.
- Do not apply on weathered insulation foams.
- Do not use on surfaces subject to constant vehicle or pedestrian traffic. Moderate pedestrian traffic with flat-soled shoes is permitted.
- Do not apply at temperatures below 5°C

PRECAUTIONS

- Because some people are sensitive to certain products, handling and application should be performed outdoor, using rubber gloves to prevent prolonged contact of product with skin.
- Always use safety goggles to prevent contact with eyes. See safety sheet.
- Non-toxic, unless ingested.
- When working at heights, all safety measures must be observed (ladders in optimal condition, safety harnesses and lifelines, walking planks, etc.).



ACRYLIC WATERPROOFING

PACKAGING	
Presentacion	19 liter bucket in White
Storage	In its original, sealed container, store product in to dry place out of direct sunlight.
Expiration	2 years
Stacking	19-liter bucket, stacked 3 high

ECOLOGICAL PROPERTIES

Fester Acriton® Green-Shield

- Contributes to improving the quality of the environment, while helping prevent the Urban Heat Island effect.

- Reduces electric power consumption and CO2 emissions
- Water-based product with biodegradable surfactants.
- When drying it forms an inert plastic film that is, it does not affect the environment.
- Contains no mercurial preservatives, metals heavy, such as lead and chromium.
- Does not contain asbestos fibers.
- Solvent-free with low VOC g/L content.

Product Name	VOC (g/L)
Fester Acriton Green-Shield 10 years white	< 1.0

Place of Production: Carretera Panamericana Km 312.
Tramo Libre Celaya-Salamanca, Gto. CP. 36700.

PHYSICAL PROPERTIES AND COMPLIANCE WITH NMX - C - 450— ONNCCE - 2019

TEST	ASTM METHOD Standard NMX - C - 450 - ONNCCE - 2019	SPECIFICATION
Appearance	E - 284	Product is creamy and white color
Density, [g /cc]	D - 1475 / NMX - C - 450 - 2019	1.245 to 1.275
Solids by weight, [%]	D - 2369	60.50 to 62.50
Brookfield viscosity, [cps]	D - 2196 / NMX - C - 450 - 2019	53,000 - 57,000
Dry to touch, (20 mils wet), [minutes]	D - 1640	30 to 40
Total drying, (20 mils wet), [minutes]	D - 1640	60 to 80
pH	E - 70	> 8.5
Accelerated weathering (QUV, Ultraviolet light Condensation and Spraying), [hours]	G - 53 - 96	3,650 hours
	NMX - C - 450 - 2019	2,000 hours
Elongation after weathering, [% minimum]	D - 2370 - 98	>200
	NMX - C - 450 - 2019	100
Tension after weathering, [psi minimum]	D - 2370 - 98	> 350
	NMX - C - 450 - 2019	200
Flexibility at low temperature, [at -15° C.]	NMX - C - 450 - 2019	Complies
Water absorption, [% by volume]		≤ 34
Permeabilidad, [perms]		50 maximum
Wet adhesion, [PLI]		≥ 2.0
Shelf life, [24 months]	D - 1849 - 95 / NMX - C - 450 - 2019	Complies



ENERGY PROPERTIES		
TEST	ASTM METHOD	SPECIFICATION
Solar reflectance , [%]	C – 1549 - 09	85.7
Thermal emittance , [index]	C- 1371 - 04	0.90
Solar reflectance index (SRI, [minimum])	E – 1980 - 11	108

PHYSICAL PROPERTIES NOM-018-ENER-2011			
PROPERTY	REFERENCE	SPECIFICATION	VALUE
Bulk density, [kg/m ³]	NOM-018-ENER-2011	Complies	1541.43
Permeability [ng/Pa.s.m]	NOM-018-ENER-2011	Complies	0.004
Moisture adsorption [%]	NOM-018-ENER-2011	Complies	1.889 en % peso 2.821 en % volumen
Water absorption [%]	NOM-018-ENER-2011	Complies	1.230 % peso
Thermal conductivity [W/m.K]	NOM-018-ENER-2011	Complies	0.0795

NMX STANDARD— U-125— SCFI-2016	
Level or class of certification, according to the standard	L - 1
Solar Reflectance Index (SRI), [minimum]	108
Solar reflectance, [%]	85.5
Emittance	0.89
Contrast ratio	0.99
Fouling whiteness difference, [%]	0.11%
Declared service life, [years]	10

BASIC RECOMMENDATIONS FOR OPTIMAL PRODUCT PERFORMANCE

1. Read instructions carefully
2. Carefully prepare the surface
3. Observe specified yields.
4. Follow the application technique

Note: The data cited were obtained under laboratory conditions both internal and external.



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Nota: The data included were obtained by HENKEL under laboratory conditions

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.