

FESTER ACRITON HYBRID

Acrylic waterproofing system — water-based, elastomeric polyurethane coating, designed to offer a waterproofing system with a warranty of up to 20 years*.

USES

- Widely recommended for roof extensions or plate covers in the industrial and commercial sectors, waterproofing, protecting and significantly extending the useful life of metal plates.
- For horizontal or slanted concrete-slab roofs.
- For metal plate or concrete roofs, to waterproof or as a reflective system, since its reflectance properties help to improve inner conditions by reducing the temperature caused by solar radiation, offering more comfort and bringing important electrical power savings, since the use of air conditioner systems or ventilation systems is reduced.
- To be applied in new surfaces or for maintenance of old systems, except for asphaltic systems (they must be removed), provided that these are completely attached and before the application of the Fester Acriton Primer Sealant.

ADVANTAGES

- Recommended for new or maintenance works.
- Due to its high whiteness, it is highly reflective, so it helps to reduce the inner temperatures and, consequently, to save electrical power expenses thanks to the resulting reduction in the use of air conditioner or ventilation system.
- It has very low conductivity; therefore, it does not transfer to the roof surface the heat received from the sunlight because of its high thermal resistance, avoiding any overheating of the roof.
- Its waterproofing, elongation, stress, flexibility, whiteness, reflectance, SRI (solar reflectance index) and other properties endure during time, offering features that translate into more benefits and longer durability, since it does not become rigid or brittle.
- Ideal for metal plate roof, since it helps to reduce the expansion that occurs due to the roof heating because of solar radiation. It prevents high temperatures from causing damage on the overlaps and attachment points.



- High resistance to different weather conditions, as well as to UV rays, drought, rains, and cold-heat, drought and dust cycles.
- Outstanding performance in the presence of structural movements.
- It efficiently covers cracks and fissures on concrete roofs (except for highly dynamic cracks and fissures).
- It contributes to reduce urban temperature (heat island).
- Moderate pedestrian walks resistant.
- Excellent adhesion to smooth or porous surfaces.
- It attaches to humid surfaces (not wet or water saturated), since the pores must be free to achieve adherence.
- Single component ready to be used.
- Easy and fast to be applied.
- Resistance to cement alkalinity and industrial fumes.



*The warranty is delivered in writing, guaranteeing a waterproofing system that had been completely applied only by an Expert Authorized by the Fester Distributor Network. For more information, consult your preferred distributor.

APPLICATION INSTRUCTION

1. Surface preparation

In rainy season, it is recommended to prepare and repair the surface one day in advance. Since, if it is done on the same day, the waterproofing system application will be desynchronized and, in such conditions, the drying time is significantly delayed.



Covers and all type of metal plate roofing.

- 1.1 On metal plate roofs, the corresponding cleaning works shall be done using a pressurized water stream, a cleaning agent and rubbing with a brush until reaching cleanliness, regardless whether it is a new metal plate roof (new plates have oils), untempered metal plate or an existing system.
- Sections with rust or corrosion shall be mechanically treated and an appropriate anti-rust primer shall be applied. In cases of metal plate degradation, it will be necessary to change plates.
- Any gutter shall be waterproofed with Fester Vaportite[®] 500, because these are sections usually covered with water or with sludge sediments (see information sheet).

1.2 Concrete slabs and other porous surfaces (new surfaces).

- Remove any loose, sharp or edged parts by grubbing with a flat shovel.
- Review for any parts where enduring puddles may appear, generating sludges. Whenever necessary, correct these parts.
- Sweep removing dust, dirt and trash. Wipe with a humid mop all over the surface several times to completely remove any persistent dust. If necessary, in doing this, the better result can be obtained washing out the surface and letting it dry.

1.3 Surfaces with an existing waterproofing system.

- Remove false adhesions of the existing waterproofing system, because the adherence will depend on the new application.
- Check for any parts where enduring puddles may appear, generating sludges. Whenever necessary, correct these parts.
- If, when removing the poorly adhered parts, cavities or irregularities are formed, repair and/or level the affected zones.
- Completely remove dust, dirt and trash. If necessary, wash out the surface with high-pressure water and let it dry.

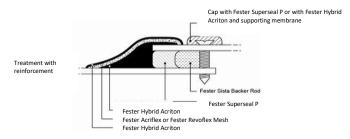
2. Fester Acriton Sealant

On the cleaned and dried surface, apply with an Airless spraying equipment, paintbrush, brush or plush roller, a coat of undiluted Fester Acriton Sealant. The approximate performance is 5 m²/liter, which may vary depending on the surface type, temperature, absorption and roughness. Let it dry 1 to 2 hours (depending on the weather) and continue with the system application process.

3. Critical points treatment

- 3.1 Metal plate roofs: treatment overlaps, ridges, attachment screws and gutters.
- Overlaps and ridges must be checked to decide which treatment must be used, since it may be "refilling" between plates with Fester Acriton Hybrid or uniformly applying with a paintbrush and lying down sheets of supporting membrane of Fester Acriflex or Fester Revoflex Mesh. Other alternative, provided the plates show no major gaps between them, is to use the Fester Superseal P Sealant, which is characterized by its high elongation and quick drying.
- Reinforcement. For industrial units, where the roof metal plates are very long and the expansion is focused in some overlaps and joints; treatment shall be provided by losing such plates, separating them and applying Fester Superseal P cords. The purpose is that the cords between the plates work as a bellow to absorb the movement occurring in these points because of the expansion. Immediately, a parallel sealant string may be applied in the joint of the plates, to work as a bridge and reinforcement for the bellow. Consequently, putting the reinforce membrane on the overlap with the Hybrid Fester Acriton will reduce the risk of a reinforcement breaking due to metal plate expansion movement.
- The screw must be re-tightened and treated with caps formed with the same Fester Acriton Hybrid product.





- Additionally, and if preferred, Fester Superseal P sealant can be used whenever the treatment with <u>reinforcement</u> had been considered. Be careful to not exceed the tightening of the screws in order to avoid completely "closing" the joint and losing the bellow.
- Gutters, overlaps and downspout can be treated with Fester Superseal P sealant or with Fester Vaportite 550, laying down sheets of supporting membranes of Fester Acriflex or Fester Revoflex. The system must be complemented for these elements with Fester Vaportite 550 and Fester Festalum. See the information sheets.

3.2 Fissures or cracks in concrete.

- It is recommended to slightly cut with the disc following the fissures path, completely removing the dust, and sealing them with Fester Superseal P or with Fester Acriton Restorer (see information sheets), which are applied with a wide trowel refilling and restoring the surface. Then, let it dry 1 to 2 hours (depending on the fissure size), so the product is not affected when walking on it.
- 3.3 Drain spout, cold joints, parapets, chamfers, pipe bases, antennas, water tanks and any critical points.
- Apply on the zone to be reinforced an even coat of undiluted Fester Acriton Hybrid and then immediately lay down a sheet of Fester Acriflex or Fester Revoflex mesh, so the sheet completely covers all the area to be treated, removing any defects, such as folds or prominences. In highly moving areas, take into account a reinforcement with a Fester Superseal P cord. Let it dry and continue with the system application.

4. First waterproofing coat

On the primed surface, apply with an airless spraying equipment, paintbrush or brush, a coat of undiluted Fester Acriton Hybrid, watching that the application is even. It is recommended to apply the product in one direction only.

4.1 For roofing or slabs in good conditions (healthy), previously prepared and primed, apply the first coat of

undiluted Fester Acriton Hybrid, following the performance indicated in the corresponding label.

- 4.2 For fissured concrete surfaces (no dynamic joints or cracks), Fester Acriton Hybrid can be used without the reinforcement mesh, after having appropriately restored the existing cracks.
- 4.3 For concrete surface with high movement, where the fissures, cracks and dynamic joints are common or where there is any risk of formation of a fissure, such as: slabs steel, compressive mortars, brickworks, prefabricated or too cracked slabs, follow the recommendations below: Provided that the surface preparation and priming had already been done, treat cracks, fissures, and joints using the procedure mentioned in point 3.2 and using Fester Superseal P. Additionally, the reinforcements must be treated as stated in point 3.3.

Apply a primer coat all over the surface of undiluted Fester Acriton Hybrid in an even manner by sections and according to the performance indicated for the warranty proposal chosen. Simultaneously, place Fester Acriflex or Fester Revoflex Mesh by laying it down in such way that it covers 100 % of the area being waterproofed. Be careful to avoid folds and prominences in the membrane. The longitudinal and transversal overlaps of the mesh must be 10 cm minimum.

In this case, the application must be done towards one direction only, using brushes or paintbrushes with natural, synthetic, soft bristles (at this point, avoid the use of spray and, in general, of rollers). Let it dry 2 to 3 hours (in sunny days) and continue with the process to apply the second coat.

5. Second waterproofing coat

Once the first coat of Fester Acriton Hybrid is dried, in which the use of the reinforcement membrane could not be considered according to some of the 3 cases mentioned in the application of the primer (according to the surface conditions 4.1, 4.2 or 4.3), apply the second coat following the same technique, as per the performance previously indicated, and without diluting the product. The application shall be done in the direction crossing the first coat. Let it dry 2 to 3 hours (in sunny days) and continue with the process to apply the second coat.

Third waterproofing coat (this third coat corresponds to the 20-year warranty option).

Once the second coat is dried, apply the third coat without diluting and according to the performance set in the corresponding label. The application shall be done in the direction crossing the second coat.



YIELD

Apply Fester Acriton Hybrid according to the surface conditions mentioned in point 4 (4.1, 4.2 and 4.3) of this information sheet.

*For the warranty of:								
10 years		15 years		20 years				
1.2 L / m²	0.6 L / m ² , 1 st coat	1.5 L / m²	0.75 L / m², 1 st coat	2.0 IL/ m ²	0.75 L / m ² 1 st coat			
In 2 coats	0.6 L / m², 2ª coat	In 2 coats	0.75 L / m ² , 2 nd coat	In 3 coats	0.75 L / m ² 2 nd coat			

Notes

a). Take into account the 3 surface conditions described in point 4, for the appropriate preparation is taken into account. Specially, in the case of point 4.3, which implies the use of reinforcement membranes. This recommendation does not limit the use of membrane to any of the other 2 cases (point 4.1 or 4.2). If, in case 4.1, the Fester Acriflex membrane is decided to be used, the applicant must be done with 1.5 L/m2 in 2 coats, to cover the membrane.

b). The amounts indicated in each case are the minimum to be applied. The performance in general may vary depending on the roughness, absorption, surface type and application technique.

IMPORTANT INFORMATION

- Do not apply under 5° C.
- Do not place as waterproofing system receiving tile or brick finishes, or in pools with a constant water immersion.
- Surfaces with tendency to enduring puddles that result in sludge formation must be avoided. These elements speed the degradation of any waterproofing system in such points.

Avoid applying on wet or water-saturated surfaces, because this can cause prominences (bubbles) derived from the water steam trapped under the waterproofing system.

CAUTIONS

- This product application must be done on "open" surfaces, which means outdoors.
- When it is required to handle the liquid product, avoid direct contact with skin and eyes, using rubber gloves and safety glasses. See the information sheet.
- Avoid handle the liquid product in closed areas. If you do so, it requires using a gas mask because this product contains ammonia.
- Since some people are sensitive to certain products, when handling the liquid product, avoid direct eye and skin contact, by using face mask for organic vapors, rubber gloves and safety glasses.
- It is not toxic, unless it is ingested.
- Any safety measures related to work at heights must be considered (Including ladder in optimal conditions, fastenings, lif lines, harness).

- In highly dynamic joints and cracks, do not apply the product alone. It is recommended to reinforce using Fester Acriflex or Fester Revoflex Mesh.
- Do not apply on surfaces poorly adhered to substrate.
- Do not apply on isolation systems and, specially, untempered systems. The waterproofing system performance depends of the quality and integrity of the isolator.
- Do not use under bearing conditions, traffic conditions or constant pedestrian movement.
- Do not mix with other products
- When working on metal plate roofs, it must be considered the use of tables to be used as "bridge" and to be able to walk reducing risks.



ECOLOGICAL PROPERTIES

- This is a product with water-based, surfactant, biodegradable polymers.
- It does not have mercury preservatives.
- It does not contain heavy metals, such as lead and chromium.
- It does not have asbestos fibers.

• Fester Acriton Hybrid helps to improve the environment quality and the wellbeing of workers and the house inhabitants, since its VOC g/l content is:

Product's Name	VOC (g/l)
Fester Acriton [®] Hybrid	22.8

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

PACKAGE AND PACKAGING	
Presentation	19 liters Bucket white color
Storage	In its original receipt, well closed, stored in a dried place protected from sun light.
Expiration	2 years
Maximum stowage	19 liters bucket, 3 pieces, one on the top of the other.

PHYSICAL PROPERTIES

TEST	METHOD ASTM	SPECIFICATIONS	TYPICAL VALUE			
Density, g /c. c.	D - 1475 - 13	1.33 @ 1.37	1.34			
Solid % in Weight	D - 2369 - 10	61.8 @ 62.8	62.30			
Brookfield Viscosity, Cps.	D - 2196 - 10	30,000 - 35,000	32,000			
Drying to the touch, (20 wet mils), minutes	D - 1640 - 03	80 - 100	90			
Total Drying, (20 wet mils), hours	D - 1640 - 03	2.5 h max.	1:30			
Accelerated weathering (QUV, ultraviolet condensation and spraying), hours	G - 53 - 96	5,475	Comply without damage			
Elongation after weathering, %	D - 2370 - 98	250 Minimum	300			
Stress after weathering, psi.	D - 2370 - 98	Minimum 600	700			
Flexion in cold at -10º C,	C - 711 - 14	Comply	Comply			
рН	E - 70 - 07	10.0 Minimum	10.5			
Water absorption, %	D - 471 - 06	Maximum 20.0	15.0			
Permeability, perms	D - 1653 - 13	Maximum 20.0	14.0			
24-month stability	D - 1849 - 95	Comply	Comply			
Solar reflectance, %	C - 1549 - 09	Minimum 84.0	84.9			
Thermal emittance	C - 1371 - 04	Minimum 0.82	0.84			
Solar Reflectance Index (SRI)	E - 1980 - 11	Minimum 104	106			

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