Technical data sheet

FRC FLUID

Fire resistant protective coating

Description

Special single-component protective coating based on polymers in water dispersion, UV-resistant pigments, additives to improve workability and special non-toxic inorganic compounds which give the product a flame retardant action.
The flame-retardant action remains active for a long time and is not affected by water or atmospheric agents.
However, it is still advisable to inspect the surface 4-5 years after laying.

Fields of use

It is used to give a flame-retardant and, at the same time, protective action to various surfaces (wood, concrete, corrugated metal sheet…), to roofing in EPS, polyurethane or bitumen-polymer membranes, both new and existing.
It also has good adhesion to PVC surfaces; sanding is recommended before application.
The flame-retardant action is performed with a thickness of only 2 mm even using FRC FLUID directly on non-flame-retardant insulating panels and without the need to insert any type of barrier or flame-retardant fabric into the product.
FRC FLUID has been tested by Istituto Giordano, classified B_{ROOF} (t2) according to UNI EN 13501-5 : 2016 (Fire classification of construction products and elements).

The test has been performed spreading the product directly on a 50 mm NON FIRE RESISTANT EPS panel (density 20 kg/m^3), without adding any separating layer or intermediate reinforcement.
Therefore, the product is applicable on combustible material with density ≥15 kg/m^3 and non-combustible material, as reported in the certificate.
Furthermore, the white colour, in addition to extending the life expectancy of any waterproofing, can also help reducing the temperature of the building.

Preparation of the support, application and consumption

The surface must be clean of any substance that could compromise adhesion, free from fatty oils, dry and with correct slopes to avoid water stagnation.
Old water-based protective paints can be overcoated as long as they are perfectly anchored to the substrate, otherwise total preventive removal is necessary.
In the case of particularly smooth surfaces (such as PVC coverings), it is recommended to sand them first.
Do not apply the product with temperatures below +10°C, relative humidity greater than 75% and in adverse climatic conditions (predicted rain, wind, temperatures other than those listed below).
The product is ready to use; just before application, mix briefly with a mechanical stirrer to restore homogeneity.
Apply the product with a brush, roller for liquid sheaths or airless spray.
We always recommend a first priming coat, using FRC FLUID diluted with about 10% of water by weight (consumption about 250 g/m^2).

Apply the product in at least 2 coats, based on the final thickness you want to obtain (**the certification is obtained on a dry film thickness of 2 mm**).
The second layer must be applied after the previous one has completely dried, generally after 6-12 hours (depending on the humidity, temperature and porosity of the substrate).

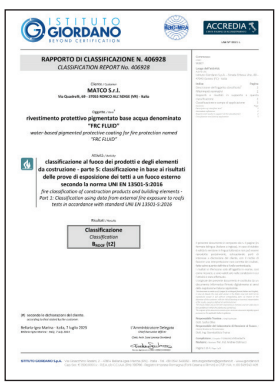
Instructions safety

The product does not require labeling according to current CE regulations.
It does not contain solvents and is not harmful to health.
It is advisable to use protective gloves and goggles or other devices required by health and safety standards.
After use, do not disperse the containers.

Packaging and storage

It is supplied in 20 kg buckets on 42-piece pallets.
The product fears frost, therefore it is recommended to keep it in the original, sealed containers and at temperatures between +5°C and +35°C, away from the sun and frost.
Use within 12 months of packing date.

Giordano Institute Certification – Fire classification of construction products and elements according to UNI EN 13501-5:2016 – Classification report No. 406928


ISTITUTO GIORDANO
RAPPORTO DI CLASSIFICAZIONE N. 406928
CLASSIFICATION REPORT No. 406928
MATCO S.r.l.
rivestimento protettivo pigmentato base acqua denominato "FRC FLUID"
water-based pigmented protective coating for fire protection named "FRC FLUID"
classificazione al fuoco dei prodotti e degli elementi da costruzione - parte 5: classificazione in base ai risultati delle prove di esposizione del tetti a un fuoco esterno secondo la norma UNI EN 13501-5:2016
fire classification of construction products and building elements - Part 5: Classification using data from external fire exposure to roofs tests in accordance with standard UNI EN 13501-5:2016
Classificazione
Classification
B_{ROOF} (t2)

Technical data

ID MAGS16

Product identification data / technical characteristics	Norm	Average value	Tolerance
Appearance		Semi-opaque film	
Colour		White, black	
Viscosity		8000 cPs	± 2000
Specific weight	ISO 2811-1	1,30 g/cmc	± 0,05
Residual dry matter	ISO 3251	68%	± 2 pp
pH	ISO 2431	8,0 u.pH	± 0,5
Flash point		Not flammable	

Physical - mechanical characteristics	Norm	Average value	Tolerance
Cold flexibility		-	
Operating temperature		from -5°C to +100°C	
Tensile strength		-	
Elongation at break		-	
Artificial exposure to atmospheric agents (QUV Test)	After 2000 hours no swelling or cracking. Slight variation in color that does not change its characteristics.		
Fire reaction GIORDANO INSTITUTE CLASSIFICATION REPORT No. 406928	**EN 13501-5:2016**	**B_{ROOF} (t2)**	**pass**
Type of substrate suitable for laying FRC FLUID	**combustible material with density > 15 kg/m³ and non-combustible material**		
Certified material thickness	**2 mm**		

Application data	Average value		
Shelf life in original packaging	12 months		
Storage conditions	Temperature higher than 0°C in unopened and closed package		
Final thickness of the layer	approx. 250 g/m² per coat		
Application type	brush, roller, spray (Airless)		
Minimum layers	Primer + minimum 2, better if crossed		
Application stages	PRIMER	Dilute the product with max 10% of drinking water	Consumption: 250-300 g/m² depending on the support
	FIRST COAT	Ready to use	**Consumption: 4,0 kg/m²**
	NEXT COATS	Ready to use	
Total full cycle consumption (including primer)	4,25 kg/m²		
Final dry product thickness	2 mm		
Air application temperature	min - max 10-35°C		
Surface application temperature	min - max 10-35°C		
Air humidity	max. 60%		
Surface humidity	max. 5%		
Minimun slope	min. 3%		
Waiting time touch dry	2 hour		
Waiting time second layer	min. 6 hours (after completely dry)		
Waiting time complete crosslinking	5 days (+20°C - 50% U.R.)		

The product can only be walked on for maintenance and repairs. Protective paints for waterproofing membranes or cementitious structures may have cracking due to linear thermal expansion of the surfaces. It is therefore advisable to provide for their restoration by maintenance of the roof periodically according to the allocation of the structure, atmospheric pollution and degradation of the surface; typically every 2-4 years.

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Values of “Cool Material” coating *

Technical characteristics	Norm	Average value
Reflectivity	ASTM E903-12	**0,82**
Emissivity	ASTM C1371-15	**0,91**
SRI (Solar Reflectance Index) Low / Medium / High wind speed	ASTM E1980-11	**103 / 103 / 103**

* Test report CERTIMAC

Regulatory requirements

CAM - Minimum Environmental Criteria *

Type of roof	Slope	SRI
Low slope	≤ 15%	76
High slope	> 15%	29

* According to the national action plan on Green Public Procurement (PANGPP) 23/06/2022 point 2.3.3

DM 26/06/2015 - National guidelines for the energy certification of buildings

Type of roof	Reflectivity
Flat roof	0,65
High slope	0,30

Packaging

Pail size	Pails x pallet
20 kg	42

We reserve the rights to change or modify the nominal values without prior notice or advice.

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Technical data sheet

22/04/2026 - This version supersedes all previous ones. The information contained in this data sheet are based on our experience. We cannot take any responsibility for a possible incorrect use of the products. The customer has to choose under their own responsibility a product fit for the intended use.