

ITER 20 R PLUS MINERAL F.R.

Composite APP bituminous waterproofing membrane fire resistant



Prefabricated modified composite waterproof membrane with differentiated waterproofing compounds. The upper face waterproofing compound is composed of distilled bitumen and elasto plastic polyolefin's with high heat resistance and cold flexibility, while the lower face compound is composed of distilled bitumen and special polymers which give incomparable characteristics of adhesion to old membranes with mineral self-protection. A particular compound, specifically studied, is used to make the upper and lower face compounds compatible. The waterproofing compound has a special inorganic and non toxic additive which confer to the product a flame retardant action. The particular reinforcement used in the ITER 20 R PLUS MINERAL F.R. provides the membrane with incomparable dimensional stability and exceptional mechanical characteristics. The ITER 20 R PLUS MINERAL F.R. membrane can be finished on the upper face with natural mineral slate, besides extending the life expectancy of the membrane, reduces heat buildup on the surface. Alternatively it can be finished on the upper face with a white reflex mineral slate with good reflective capacities, besides extending the life expectancy of the membrane, its reduces heat buildup both on the external surface as well as inside the building with a reasonable savings in terms of energy consumption. The emissivity of the ITER 20 R PLUS MINERAL F.R. with white reflex mineral slates furthermore favors the

dissipation of accumulated heat during the night. The lower face or application surface has a PE film finish. ITER 20 R PLUS MINERAL F.R. is provided with a side selvedge of 10 cm and a head selvedge of 15 cm, which favors the joining and water resistance of the sheets.

USES

ITER 20 R PLUS MINERAL F.R. is used to refurbish old membranes self-protected with mineral slates, given the excellent characteristics of workability and adhesion to the mineral granules.

ADVANTAGES

- ✓ Faster application, due to the special formulation of the lower face compound (savings of approx. 50% of gas).
- ✓ More safety at the jobsite, as it is not necessary to use hot oxidized bitumen to amalgamate the mineral of the old membrane.
- ✓ Obtains a secure and efficient proven water tightness due to the exceptional adhesion of the compound which, amalgamating the mineral slates in the melted mass of the lower face of the ITER 20 R PLUS MINERAL F.R., creates a full bond to the old membrane.
- ✓ The special white reflex mineral slate finish, with good reflective capacities, extends the life of the membrane and furthermore reduces the temperature of the external surface as well as inside of the building with reasonable savings in terms of energy consumption. To improve the reflectivity and capability of lowering the temperature, apply the VOLTAIKA coating on the mineral surface.

Reinforcement: Composite

Compound: Elasto-plastomeric polymer bitumen (APP)

Upper finish: Natural / White reflex mineral slate *

Lower finish: PE film

Intended use:

EN 13707 Continuous roofs (certificate no. CE0958-UKCA0120): Top layer / Single layer on a pre-existing mineral self-protected membrane layer

Application method: Torch / Mixed (Torch / Air) / Mechanical fixing

* Mineral self-protected products may undergo color tone variations due to the time and length of storage. Exposure to atmospheric conditions, after application, will tend to uniform the color after a few months. The change in color tone cannot therefore be contested and / or complained of as it is a natural phenomenon that the slate manufacturer himself cannot guarantee.

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APPLICATION

- ✓ Clean the application surface.
- ✓ Apply by torch application or hot air, in correspondence to the verticals, a 25 cm strip of ITER 20 BIARMATO membrane.
- ✓ Position the sheets always starting from the lowest point, in order to have all the overlaps with the slope.
- ✓ When applying staggered, position the sheets alternating the overlapped areas, in order to not create joints against the slope towards the drains.
- ✓ After having positioned the sheets, re-roll the membranes to half their length, beginning the application by torching; repeat the same operation with the other half of the roll (drawing 1).
- ✓ It is necessary to heat the entire surface, besides the overlaps, of the lower face to obtain a full adhesion to the application surface.
- ✓ During the application by torch a mass of melted compound must form in front of the roll in order to saturate the surface porosity. The mass of melted compound is created by torching the R compound on the lower face of the membrane (drawing 2).
- ✓ Torch by flame or hot air the side laps (10 cm) and the head laps (15 cm) with an overlap torch. During this operation use a metal roller (15 kg) to press the overlaps and obtain a bead of melted compound. It is not necessary to iron the overlaps during this operation (drawing 3).
- ✓ Apply the vertical membrane sheet by overlapping on to the horizontal surface by at least 10 cm, torching by flame or hot air, pressing the joins with a trowel to obtain a bead of melted compound to finish the corners (drawing 4).
- ✓ The height of the vertical must be at least 15 cm more than the finished roof surface.
- ✓ Verticals higher than 20 cm must be done with ITER 20 BIARMATO 4 mm or NORD-TEC G200 MINERAL.



1



2



3



4

RECOMMENDATIONS

To best use the technical characteristics of bituminous membranes and guarantee the maximum performance and durability of the jobs where they are used, some simple but fundamental rules must be respected.

- The rolls are to be stored in an upright position, indoors in a dry and ventilated area, away from heat sources. Absolutely avoid the stacking of rolls and pallets for storage or transport to avoid possible deformations which may compromise a perfect installation. It is recommended to store the product at temperatures above 0°C.
- Do not keep the product outside and at a temperature below +10°C and above +40°C except for the time strictly required for application.
- The application must be done at temperature higher than + 5°C.
- The application must be interrupted in adverse weather conditions (high humidity, rain, etc.).
- The pallets on which the rolls are packaged are intended for normal warehouse use.
- The materials on stock should be rotated following a first in first out rotation.

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TECHNICAL SPECIFICATIONS

| CHARACTERISTICS | TESTING METHOD | M.U. | TOLERANCE | VALUE |
|------------------------------------|----------------|---------|---------------|---------------------------|
| Adhesion of granules | EN 12039 | % | MLV ≤ | 30 |
| Length/Width | EN 1848-1 | m | MLV ≥ | 8,00 / 1,0 |
| Visible defects | EN 1850-1 | visual | | None |
| Thickness | EN 1849-1 | mm | MDV ±5% | 4 on seldedge |
| Straightness | EN 1848-1 | mm/10 m | MLV | < 20 |
| Watertightness | EN 1928 | kPa | MLV ≥ | 60 |
| Watertightness after ageing | EN 1296 | kPa | MLV ≥ | 60 |
| External Fire Performance | EN 13501-5 | | | B _{ROOF} (t2) ** |
| Reaction to fire | EN 13501-1 | class | | NPD |
| Shear resistance L/T | EN 12317-1 | N/50 mm | MDV -20% +50% | 1100/1100 |
| Maximum tensile strength (L/T) | EN 12311-1 | N/50 mm | MDV -20% +50% | 1200/1200 |
| Elongation (L/T) | EN 12311-1 | % | MDV -15 +30 | 4/4 |
| Resistance to tearing (L/T) | EN 12310-1 | N | MDV -20% +50% | 200/200 |
| Resistance to static loading | EN 12730-A | kg | MLV ≥ | 15 |
| Resistance to impact | EN 12691-B | mm | MLV ≥ | 1000 |
| Peel resistance of joints L/T | EN 12316-1 | N/5 cm | MDV ±20N | 50/50 |
| Cold flexibility | EN 1109 | °C | MLV ≤ | -20 |
| Cold flexibility after ageing | EN 1296 | °C | MDV +15°C | -15 |
| Flow resistance | EN 1110 | °C | MLV ≥ | 140 |
| Flow resistance after ageing | EN 1296 | °C | MDV -10°C | 140 |
| Dimensional stability | EN 1107-1 | % | MLV ≤ | 0,1 |
| Root resistance | EN 13948 | | | NPD |
| S.R.I. Solar Reflectance Index *** | ASTM E-1980 | % | | Pass |
| Vapour transmission | EN 1931 | μ | MLV ≥ | 20000 |

** External fire behavior classification valid exclusively for the membrane applied in the systems indicated as per certification available on request.

*** with white reflex mineral slate.

MDV : value declared by the manufacturer associated with a declared tolerance.

MLV : limit value, minimum or maximum, declared by the manufacturer.

NPD : No Performance Declared in accordance with the EU Construction Products Directive.

PACKAGING

| PRODUCT | ROLL SIZE | WEIGHT KG/M ² | THICKNESS MM | SQUARE METRES PER PALLET |
|-----------------------------|-----------|--------------------------|---------------|--------------------------|
| Iter 20 R Plus Mineral F.R. | 8 m x 1 m | - | 4 on seldedge | 184 |

The waterproofing membrane based on distilled bitumen and polymers, as shown in this data sheet does not require the issue of a MSDS, because it does not contain dangerous substances. The information data sheet for the proper use of products is available. The technical data given is based on average values obtained during production. We reserve the rights to change or modify the nominal values without prior notice or advice. 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.

26/02/2025 - This version supersedes all previous ones.