CE 0958

COPERNIT WATERPROOFING SYSTEMS

# MFT MONO B-FIRE MINERAL

**Compound**
**MFT**
**Multi-Flex-Technology**

**CHARACTERISTICS**

MFT MONO B-FIRE MINERAL is an innovative multi-coating bituminous membrane made with the MFT Multi-Flex Technology, another result of the constant Copernit research, combining in one product the advantages of both APAO and SBS membranes.
MFT technology exceeds the traditional coating processes and gives the possibility to design the bituminous membrane by choosing three different bituminous compounds layers into the same product, depending on the final destination of use and required performances.
MFT MONO B-FIRE MINERAL, in fact, is composed by the following three coats:

- Upper face: highly modified bituminous compound with selected poly-olefins and copolymers (APAO), giving an oustanding resistance to high temperatures and UV ageing
- Lower face: superior elastomeric compound made of distilled bitumen modified with SBS (Styrene-Butadiene-Styrene) polymers, which ensures extreme elasticity, ease of application and superior bonding and tightness of all joints and overlaps
- Reinforcement impregnation: special modified compound, made on purpose for the best pliability and resistance to mechanical stresses and perforation

MFT MONO B-FIRE MINERAL is a membrane of un-compromising quality, designed for use by professionals for professional applications where the waterproofing layers really must withstand static and dynamic forces as well as severe weathering and adverse climate conditions.

Thanks to its special formulation, MFT MONO B-FIRE MINERAL has specific resistance proprieties to external fire: tests performed by notified laboratories according to ENV 1187 classify our membrane as $B_{ROOF}(t2)$ according to EN 13501-5.

**CARRIER**

MFT MONO B-FIRE MINERAL has aspecial high-grade spunbond polyester carrier, reinforced and stabilised with composite fibers and glass, combining superior dimensional stability with good tensile strength, excellent elongation values and outstanding mechanical properties.

**INTENDED USE ACCORDING "CE" MARK STANDARDS**

| | |
|---|---|
| **Single-layer system $B_{ROOF}(t2)$** for roof waterproofing (EN 13707) | **MFT MONO B-FIRE MINERAL** 5,0 kg/m² |

Note: external fire classification refers to the build-up system (substrate+insulating element+waterproofing) as tested in laboratory. Please consult "**B-Fire membranes**" technical guide provided by Copernit Technical Department in order to verify the reference documents and the direct field of application; in the table below an overview of the admissible substrates for every system is reported.

| CLASSIFICATION | SYSTEM | | SUBSTRATE | |
|---|---|---|---|---|
| | SINGLE LAYER | DOUBLE LAYER | COMBUSTIBLE | NON COMBUSTIBLE |
| $B_{ROOF}(t1)$ | | | | |
| $B_{ROOF}(t2)$ | ✓* | | | |
| $B_{ROOF}(t3)$ | | | | |
| $B_{ROOF}(t4)$ | | | | |

* Only for single-layer system installed on EPS with flame retardant (fire reaction: class E)

**AVAILABLE SURFACE FINISHES**

Upper surface — self-protection by means of slate flakes available in standard grey or other various colours upon request.

Lower surface — Polyethylene fast burning film. For cold applications by means of adhesives the use of TEX finishing on the lower surface is recommended.

**USE & APPLICATION**

MFT MONO B-FIRE MINERAL is recommended for single layer $B_{ROOF}(t2)$ waterproofing systems on flat, pitched or vaulted roofs.
Subject to the type of substrate it shall be installed by means of a propane gas torch, approved adhesives or by mechanical fixing. In any case it is recommended to prepare substrate with fixative bituminous PRIMER W (water base) or PRIMER S (solvent base).
For cold applications on primed concrete surfaces MFT MONO B-FIRE shall be installed using COPERGLUE BASE (over horizontal areas) or COPERGLUE VERTICAL (parapets and elevations) bituminous adhesives. Side laps, head joints and small repairs shall be made with COPERGLUE JOINT adhesive. For cold applications over EPS insulation board COPERMAST bituminous mastic shall be used.
For correct installation refer to information provided by Copernit Technical Department.





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| Properties | Test Method | Unit | MFT MONO B-FIRE MINERAL 5,0 kg/m² | Tol. |
|---|---|---|---|---|
| Length | EN 1848-1 | m | 7,5 (-1%) | ≥ |
| Width | EN 1848-1 | m | 1,0 (-1%) | ≥ |
| Unit weight | EN 1849-1 | kg/m² | 5,0 | ±10% |
| Thickness *(indicative only)* | EN 1849-1 | mm | 4,5 | ±10% |
| Tensile strength (at break) L/T | EN 12311-1 | N/5 cm | 750/650 | ±20% |
| Elongation (at break) L/T | EN 12311-1 | % | 40/40 | ±15 |
| Tear resistance (nail test) L/T | EN 12310-1 | N | 250/250 | ±30% |
| Shear resistance of joints L/T | EN 12317-1 | N/5 cm | 700/600 | ±20% |
| Resistance to static loading | EN 12730 (A) | kg | 15 | ≥ |
| Impact resistance | EN 12691 | mm | 1000 | ≥ |
| Dimensional stability | EN 1107-1 | % | ±0,3 | ≤ |
| Flexibility at low temperature – *upper surface* | EN 1109 | °C | -20 | ≤ |
| Flexibility at low temperature – *lower surface* | EN 1109 | °C | -20 | ≤ |
| Flow resistance at elevated temperature – *upper surface* | EN 1110 | °C | 140 | ≥ |
| Flow resistance at elevated temperature – *lower surface* | EN 1110 | °C | 100 | ≥ |
| Watertightness (method A) | EN 1928 | kPa | 60 | ≥ |
| Resistance to water vapor diffusion (μ) | EN1931 | -- | 20.000 | -- |
| Reaction to fire | EN 13501-1 | Class | E | -- |
| Resistance to external fire | EN 13501-5 | Class | $B_{ROOF}$(t2)* | -- |

(*) Classification is valid for all roof pitches but only for single layer systems installed on EPS with flame retardant (fire reaction:class E)

For complete product information and correct installation, refer to the "MFT MULTI-FLEX TECHNOLOGY" catalogue provided by Copernit.



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