



**fire protection
of building structures**

mcr **TECWOOL F** ▶

spray protective mortar system

Technical Approval ITB AT-15-9682/2016
Certificate of Conformity ITB-2468/W
National Declaration of Performance KDWU/HZ/03/2017

The mcr Tecwool F system provides the following fire-resistance classes:

- R15-R240 for steel structures with massiveness coefficient $U/A \leq 400 \text{ m}^{-1}$,
- R30-R240 for reinforced concrete elements,
- REI 60 and REI 120 for beam-hollow ceilings,
- REI 120 for reinforced concrete ceilings on a trapezoidal sheet.

The mcr Tecwool F spray system is a fire-proof system designed to protect steel structures, reinforced concrete elements, as well as reinforced concrete ceilings on a trapezoidal sheet and beam-hollow ceilings inside the buildings.

The mcr Tecwool F spray system, apart from its basic fireproofing properties, can be successfully used as acoustic plaster (sound absorbing), capable of diffusing sound and limiting the reflections of sound energy from the surface of protected partitions. The thickness of the plaster directly affects the acoustic absorption. The higher the thickness, the better the sound absorption. Sound absorption coefficients depending on the thickness of sound absorbing mortar calculated in accordance with EN ISO 11654:1999 are presented in the following table:



thickness [mm]	sound absorption coefficient α_w	sound absorption class
16	0,50 (H)	D
26	0,75	C
50	0,90	A

◀ mcr **ISOVERM 825/** mcr **TECWOOL 825**

spray protective mortar system

Technical Approval ITB AT-15-8196/2016
Certificate of Conformity ITB-1918/W
National Declaration of Performance KDWU/HZ/01/2017

mcr Isoverm 825 provides the following fire-resistance classes:

- R15-R240 for steel construction elements with massiveness coefficient $U/A \leq 400 \text{ m}^{-1}$.

The mcr Isoverm 825 spray system is designed for fire-proof protection of steel construction elements inside and outside the buildings, including those exposed to the thermal impact of hydrocarbon fires.

Fire resistance of the system is ensured by proper selection of thickness of the sprayed mass in accordance with massiveness factor of the proofed element, designed fire resistance class, and critical temperature of the steel.



◀ mcr **TECBOR**



magnesium board system (MgO)

Technical Approval ITB AT-15-9505/2015
National Declaration of Performance KDWU/HZ/06/2017

mcr Tecbor boards provide the following fire resistance classes:

- R30-R240 for steel construction elements with massive coefficient $U/A \leq 498 \text{ m}^{-1}$,
- EI30-EI120 for cable trays,
- EI120 for ventilation ducts,
- EIS120 for smoke extraction ducts,
- EI60-EI180 for partition walls and wall claddings,
- EI90-I120 for suspended ceilings and ceiling claddings,
- EI60-EI120 for curtain walls,
- REI60-REI240, RWS120-RWS180, RABT-ZTV 170, RWS/HCM 120-180 for protection of the communication tunnels' constructions,
- R30-R240, REI30-REI240 for reinforced concrete construction elements.

mcr Tecbor boards are a modern building material designed for making fire-retardant cladding of building elements and for building independent components with a declared fire resistance class.

mcr **SILBOARD** ▶

fireproof board system

European Technical Assessment ETA-18/0546
Certificate of Constancy of Performance 1488-CPR-0698/W
Declaration of Performance DoP HZ/01/2018
Technical Approval ITB AT-15-9783/2016
National Technical Assessment ITB-KOT-2018/0561 edition 1
National Technical Assessment ITB-KOT-2018/0560 edition 1

mcr Silboard is an innovative fireproof calcium-silicate board designed for:

- ▶ construction of self-supporting ventilation and smoke extraction ducts classified in EIS120,
- ▶ construction of cable ducts ensuring continuity of electricity supply or signal transmission for 30, 60, 90 and 120 minutes,
- ▶ protection of steel structures in a single-layer system in classes R15-R180 and in a two-layer system in classes R15-R360,
- ▶ construction of non-bearing fire separation walls in classes EI120 and EI240,



- ▶ execution of fireproof protections of reinforced concrete structure elements reinforced with strips and carbon fiber mats within up to 120 minutes depending on the critical temperature of the glue.

◀ **TECSEL**

fireproof intumescent grilles

Tecsel grilles meet the requirements of EN 1363-1: Fire resistance tests - Part 1: General requirements, confirmed by the test report number 23548 issued by the Spanish laboratory CIDEMCO-TECNALIA.

Fire resistance class EI120.

Tecsel grilles allow free circulation of air at ambient temperature through a structural element (walls, doors, etc.), while providing effective protection in the event of a fire. They swell in high temperature and form a layer of impact-resistant non-combustible foam, which - as an insulating layer - prevents the passage of flames, smoke and fire gases to the rest of the building not affected by fire.



mcr PS ▶

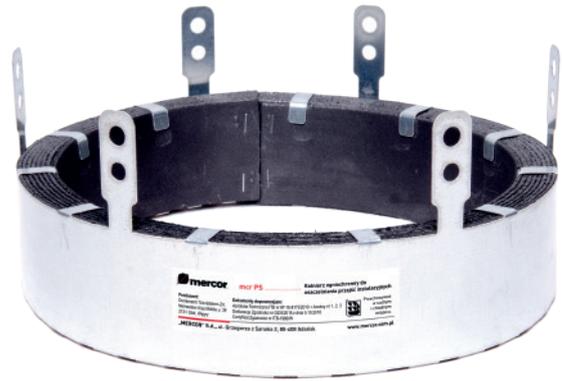
intumescent fireproof collar

European Technical Assessment ETA-17/0676
Certificate of Constancy of Performance 1488-CPR-0624/W
Declaration of Performance DoP 840006-84044

Fire resistance class EI120.

mcr PS collars are designed for fire proof protection of the passages in walls and ceilings:

- ▶ combustible pipes with a diameter up to 250 mm (PVC-U, PVC-C, PE-HD, PE, ABS, SAN+PVC, PP-R),
- ▶ bundles of combustible pipes with a diameter of up to 75 mm,
- ▶ combustible pipes with a diameter of 160 mm passing at an angle to the barrier,
- ▶ combustible pipes in combined culverts.



◀ mcr PS-25

fireproof intumescent wrap in a roll

European Technical Assessment ETA-17/0676
Certificate of Constancy of Performance 1488-CPR-0624/W
Declaration of Performance DoP 84017-84026

Fire resistance class EI120.

mcr PS-25 wraps are designed for fire-retardant protection of walls and ceilings passages:

- ▶ combustible pipes with a diameter up to 250 mm (PVC-U, PVC-C, PE-HD, PE, ABS, SAN+PVC, PP-R),
- ▶ non-combustible pipes in combustible insulation in combined passages.

mcr PS BANDAGE ▶

fireproof intumescent bandage in a roll

European Technical Assessment ETA-18/0171
Certificate of Constancy of Performance 1488-CPR-0680/W
Declaration of Performance DoP 84151

Fire resistance class EI120.

mcr PS BANDAGE is designed for fire-proof sealing of mixed installation passages of combustible pipes, single cables or bundles of cables and non-combustible pipes with insulation passing through walls and ceilings.



◀ mcr **DUNASEAL**

fireproof sealing tape

European Technical Assessment ETA-18/0475
Certificate of Constancy of Performance 1488-CPR-0678/W
Declaration of Performance DoP 81400

Fire resistance class EI120.

mcr Dunaseal tape is designed for fireproof sealing of construction joints and dilatation up to 100 mm with a possible displacement not higher than 50%.



mcr **DUNABOARD** ▶

mineral wool board covered with intumescent paint

1. mcr Polylack F

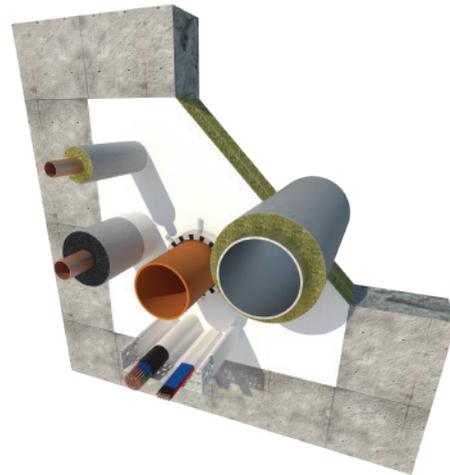
European Technical Assessment ETA-18/0171
Certificate of Constancy of Performance 1488-CPR-0680/W
Declaration of Performance DoP 81070

2. mcr Polylack Elastic

European Technical Assessment ETA-18/0169
Certificate of Constancy of Performance 1488-CPR-0701/W
Declaration of Performance DoP 81078

Fire resistance class EI120.

mcr Dunaboard boards are mineral wool boards pre-coated with mcr Polylack F or mcr Polylack Elastic paint. They are designed for fire protection of installation culverts in the mcr Polylack system.



◀ mcr **POLYLACK F**

fireproof intumescent paint

European Technical Assessment ETA-18/0171
Certificate of Constancy of Performance 1488-CPR-0680/W
Declaration of Performance DoP 81282

Fire resistance class EI120.

mcr Polylack F paint is designed for fireproof sealing of mixed installation passages of combustible pipes, single cables or bundles of cables and non-combustible pipes with insulation passing through walls and ceilings.



mcr **POLYLACK K** ▶

fireproof intumescent paste

European Technical Assessment ETA-18/0171
Certificate of Constancy of Performance 1488-CPR-0680/W
Declaration of Performance DoP 81303

Fire resistance class EI120.

mcr Polylack K is a complementary product for mcr Polylack F that has the function of filling and sealing mass. It is designed for fireproof sealing of mixed installation penetrations of combustible pipes, single cables or bundles of cables and non-combustible pipes with insulation passing through walls and ceilings.



mcr POLYLACK KG ▶

fireproof intumescent paste with graphite

European Technical Assessment ETA-18/0171
Certificate of Constancy of Performance 1488-CPR-0680/W
Declaration of Performance DoP 81340

Fire resistance class EI120.

mcr Polylock KG paste is a complementary product for mcr Polylock F and mcr Polylock Elastic intumescent paints which is used as a filling and sealing compound. It is designed for fireproof sealing of mixed installation penetrations of combustible pipes, single cables or bundles of cables and non-combustible pipes with insulation passing through walls and ceilings.



◀ mcr POLYLACK ELASTIC

fireproof intumescent elastic paint

European Technical Assessment ETA-18/0170
Certificate of Constancy of Performance 1488-CPR-0679/W
Declaration of Performance DoP 81503
European Technical Assessment ETA-18/0169
Certificate of Constancy of Performance 1488-CPR-0701/W
Declaration of Performance DoP 81500

Fire resistance class EI120.

mcr Polylock Elastic paint is designed for fire protection of:

- ▶ dilatation in walls and ceilings,
- ▶ combined culverts - cables, combustible pipes, non-combustible pipes, non-combustible pipes in insulation.



mcr POLYLACK W ▶

fireproof intumescent paint

European Technical Assessment ETA-15/0801
Certificate of Constancy of Performance 1301-CPR-1145
Declaration of Performance DoP 81230

mcr Polylock W in accordance with EN 13501-2:2007+A1:2009 provides resistance classes:

- R15-R60 for open profiles - columns and beams,
- R15-R45 for round and rectangular closed profiles - columns,
- R15-R45 for rectangular closed profiles - beams.

mcr Polylock W water-based intumescent paint system is designed for fire protection of steel structures inside the buildings.



◀ mcr **POLYLACK A**



fireproof intumescent paint

European Technical Assessment ETA-17/0735
Certificate of Constancy of Performance 1301-CPR-1376
Declaration of Performance DoP 81250

mcr PolyLack A in accordance with EN 13501-2:2007+A1:2009 provides the following resistance classes:

- R15-R60 for open profiles - columns and beams,
- R15-R60 for round and rectangular closed profiles - columns,
- R15-R60 for round and rectangular closed profiles - beams.

mcr PolyLack A solvent-based intumescent paint system is designed for fire protection of steel structures inside the buildings.

mcr **POLYLACK WOOD** ▶ **TRANSPARENT**

water-based intumescent paint

Fire reaction class: B-s2, d0 according to EN 13501-1+A1:2010 according to classification report 01933/15/Z00NP.

The mcr PolyLack Wood Transparent water-based intumescent paint system is designed for fire protection of wooden constructions, such as rafters, columns, bolts and interior design elements: wall panels made of solid wood, plywood and wood-based materials (including OSB) inside the buildings.



◀ mcr **POLYLACK WOOD** **BIANCO AQUA**

water-based intumescent paint

Fire class reaction: B-s2, d0 according to EN 13501-1+A1:2010 according to classification report 2887/15/Z00NP.

mcr PolyLack Wood Bianco Aqua water-based intumescent paint system is designed for fireproof protection of wooden constructions, such as rafters, pillars, bolts and interior design elements: wall panels made of solid wood, plywood and wood-based materials (including OSB) inside the buildings.



MERCOR GROUP IN THE WORLD



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