FLAMRO Multi Combi Seal EN
EI 90 / EI 120

ETA-13 | 0756
FM Global Approval No. 3044513

Special Benefits

- Coating may be sprayed, brushed or spread with spatula
- No drops, clean working
- Easy installation and retrofitting
- Also approved for lightweight partition walls with steel and wooden stands
- Max. opening dimensions for walls 1400 x 2000 mm
- Short coating lengths for installations (200 mm)
- Coatable with aqueous emulsion paint
- Mineral fibre plates with external coating only
- High flexibility
- Area of application Y_2 in accordance with EOTA TR 024. The seals must be protected from rain and UV.
- The seal may also be installed in pressurised areas or in a vacuum
- Resistant to wind loads according to DIN EN 12211
- Air permeability according to DIN EN 1026

Permitted Configuration

- Non-combustible pipes made from steel, stainless steel, cast steel ≤ 168.3 mm
- CU pipes ≤ 88.9 mm
- Plastic pipes (PVC, PE) ≤ 160 mm in conjunction with Variant N II A Fire Protection Collar EI 120 U / U
- Sheathed cables up to Ø 80 mm
- Cable bundle up to Ø 100 mm
- Installation pipes ≤ 25 mm
- Synthetic rubber insulated pipes Armaflex Protect
- Ducts up to 25 mm, rigid | flexible | occupied | unoccupied | combustible | non-combustible | also as bundle
- Plastic pipes (PVC, PE) insulated with Arma Protect EI 120 U / C

Sectional Insulation

- Mineral fibre shells ≥ 90 kg/m³
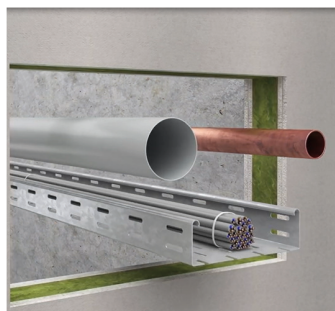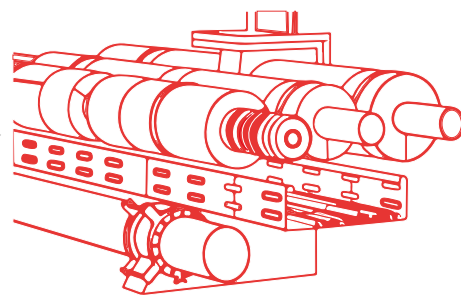- Armaflex Protect

Form of Delivery

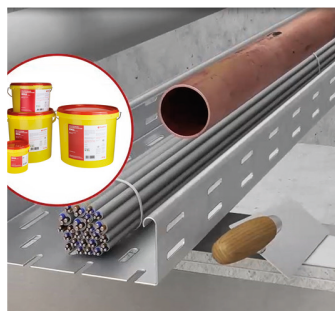| Article Description	Contents / Dimensions	Art. No.
FLAMRO BS system panel, single-sided coating	1000 x 625 x 60 mm	50060
FLAMRO BMS Putty	1 kg 5 kg 12.5 kg 25 kg	10010 10500 10125 10250
FLAMRO BMA Coating Material Airless	1 kg 5 kg 12.5 kg 25 kg	20010 20500 20125 20250
FLAMRO BMK from the cartridge	0,4 kg cartridge 1,0 kg cartridge	30004 30010
FLAMRO Variant N II A Fire Protection Collar	see page 54	Dependent on pipe diameter
FLAMRO UBB Strip	1000 x 60 x 2 mm	90050

How much material is required?

Description

The Combi Seal is used to preserve fire resistance at openings in lightweight partition walls, rigid walls and floors through which various types of cables and pipes are inserted.

The component opening soffits must first be cleaned.

The inserted cables, lines, multicore tubes and cable supporting structures must be coated on both sides with FLAMRO BMA Ablation Coating. The dry layer thickness must be at least 2 mm.

When installing the Combi Seal in walls, the pipe collars must be installed on both sides of the wall; when installed in floors they must be positioned on the underside of the floor. The smallest fitting pipe collar for the pipe outer diameter must be used. The sectional insulation must be coated on both sides of the combi seal over a length of

250 mm using FLAMRO BMA Ablation Coating. The dry layer thickness must be at least 2 mm.

The openings between the component soffits and inserted cables/lines/multicore tubes/cable supporting structures must be sealed using a single layer of fire protection plates. The outer edges of the plates must be coated with FLAMRO BMA / BMS Ablation Coating.

The coating thickness must be at least 1 mm. Cable bundles must not be filled inside with fire protection materials.

After the component opening has been sealed, all interstices and joints must be filled on the outer side using FLAMRO BMS / FLAMRO BMK Coating. The seal surfaces and the installations must then be coated on the outside using the ablation coating, so that the dry layer thickness is at least 2 mm.

The seal must then be permanently labelled with a sign. The identification plate must be attached to the component next to the seal and may be obtained from FLAMRO.

Installation Data

	Rigid wall	Solid floors	Lightweight partition walls
Wall/floor thickness	min. 122 mm	min. 150 mm	min. 122 mm
Max. seal dimensions (W x H/L)	970 x 1200 mm 1200 x 970mm	1200 x 970mm up to ∞ x 538 mm[1]	970 x 1200 mm 1200 x 970mm
Min. Seal thickness	130 mm	150 mm	130 mm
Coating length cable	double-sided 100 | 250 mm	double-sided 100 | 250 mm	double-sided 100 | 250 mm

[1] EN 1366-3, Section 13.5.2