

Multidisc

Firestop Disc

European
Technical Assessment
ETA 24/0331



Technical Data Sheet

MULCOL
INTERNATIONAL

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MULCOL
INTERNATIONAL

**Pragmatic, effective
and applicable
solutions**

Multidisc

Firestop Disc



Fire resistance
≤ 120 minutes

EPD
VERIFIED



Working life
25 years



Speed
Fast installation

Firestop disc

The Multidisc is a self-adhesive firestop disc that can be plastically shaped around small penetrations. The Multidisc expands when exposed to heat and creates a fire-resistant and smoke-proof seal to adjacent rooms.

The Multidisc forms part of the Mulcol® Penetration Seal System.

Advantages

- ✓ Fire resistance ≤ 120 minutes
- ✓ CE-certified
- ✓ Simple and fast installation
- ✓ Low installation costs
- ✓ A single solution for penetrations up to 26 mm
- ✓ No waste
- ✓ Environmentally and user-friendly
- ✓ Permanently elastic
- ✓ Working life of 25 years

Applications

- ✓ Rigid walls and floors
- ✓ Flexible walls
- ✓ Firestop boards
- ✓ CLT walls and floors
- ✓ Sandwich panels
- ✓ PVC pipes up to Ø 26 mm
- ✓ Multiple PVC pipes
- ✓ Electric cables, cable bundles up to Ø 26 mm
- ✓ Aluminium composite pipes
- ✓ Metal pipes

Packaging

	Dimensions	Box	Outer box	Pallet	Article number
Disc	Ø 65 mm, thickness 3 mm	32 pieces	384 pieces	12288 pieces	205002065

1. Technical data

EAN-code	8719324470261
Colour	Red/brown with a light gray top coat
Shelf life	Not applicable
Transportation - storage temperature	+5 °C to +30 °C (store dry and free of dust in the original packaging)
Application temperature	+5 °C to +30 °C
Temperature resistance	-20 °C to +60 °C
Expansion pressure	No expansion pressure measurable
Usage category¹⁾	Type Z ₁ in accordance with EAD 350454-00-1104
Paintable²⁾	Yes
Expansion factor³⁾	6.0 x up to 9.0 x
Fire class	E in accordance with EN 13501-1
Approvals	ETA report 24/0331, VKF report 031326

¹⁾Permissible environmental conditions

Product intended for use in conditions with > 85% RV, protected from temperatures below 0 °C, and without exposure to rain and/or UV (TR 024:2019, type Z₁). Limited contact with splash water tolerated. Lasting wetness, stagnant water and water pressure must be avoided.

²⁾Influence of finishing materials and chemicals

The following paints and limited contact with chemicals will not cause any changes in the fire protection properties:

Coating materials	: Dispersion paint, alkyd paint, polyurethane acrylic paint, epoxy resin paint (prior treatment with a primer is not required, but recommended)
Solvent/oil	: Butyl acetate, butanol
Gaseous chemicals	: Short term storage with concentrated ammonium hydroxide solution

Remark

Environmental conditions with high humidity levels and/or some types of coating materials and chemicals may affect the colour or reduce colour changes.

³⁾Expansion factor

Tested on samples at +450 °C for 25 minutes with overload. The expansion factor is a laboratory characteristic value.
The expansion factor in an installed state depends on the existing preconditions.

Contact with metals and plastics

The surface consistency of aluminium, stainless steel, galvanised steel and polyethylene and polyvinyl chloride plastics is not adversely affected through contact with the Multidisc.

Environmental documents

✓ EPD (Environmental Product Declaration)



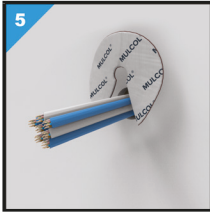
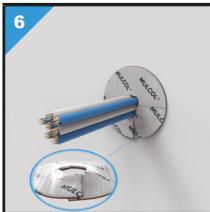
Find all of our environmental documents easily on our downloadpage or via the QR code:

Environmental databases

Multidisc is listed in the environmental databases:

- ✓ SundaHus
- ✓ BVB (Byggvarubedomningen)
- ✓ Nordic Swan Ecolabel

2. Installation manual

 1 ≤ 32 mm	Drill the desired gap of up to 32 mm in the wall.	 5	Fold the Multidisc open so that it fits well around the service penetration.
 2	Make sure the surface of the wall is free from dust, dirt and grease.	 6	Carefully apply the Multidisc and make sure that the sealing side overlaps. Press the Multidisc properly onto the structure and around the service penetration!
 3	Feed the required installation components through.	 7	Fill in the conformity statement and paste it next to the fireproof seal.
 4	Remove the protective film on the back of the Multidisc.		



For use and for more information about an application, refer to the Mulcol documentation, local and international approvals.

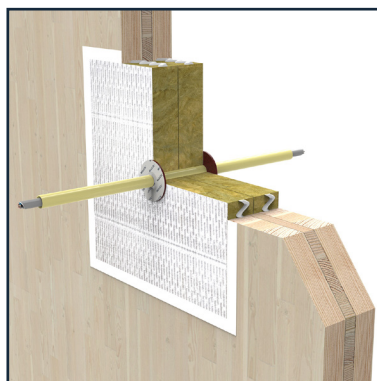
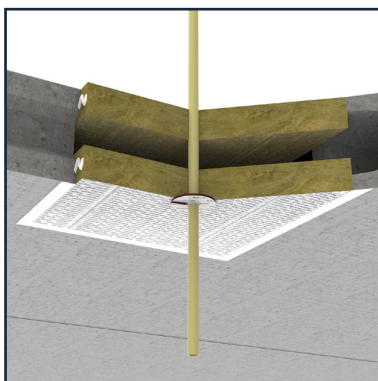
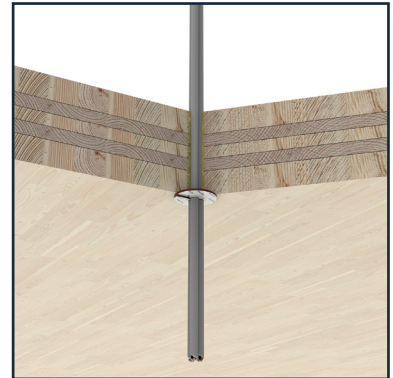
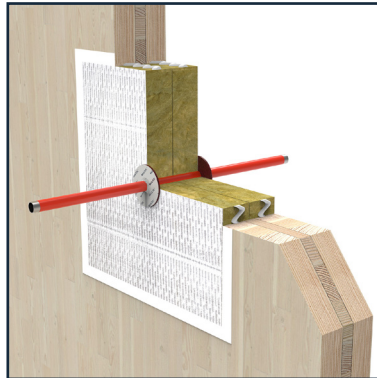
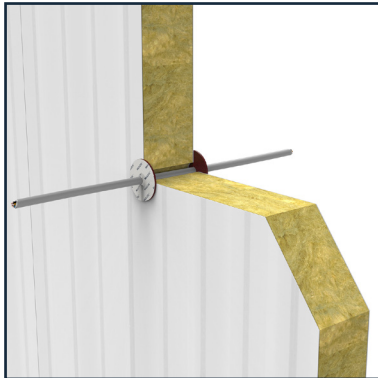
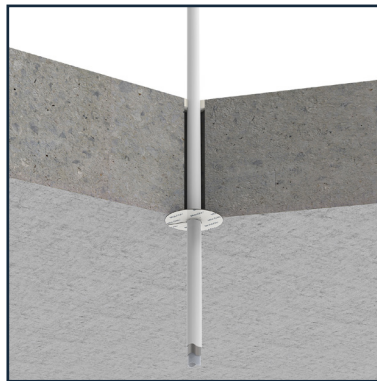
See the **Mulcol Fire Protection app** for the correct application in combination with fire resistance, or use our **selector** at www.mulcol.com.

3. Tested solutions

All the latest tested solutions with the Multidisc can be found in our **Multiselector**. Scan the QR code or press the Multiselector button to get directly to the tested solution for your project.

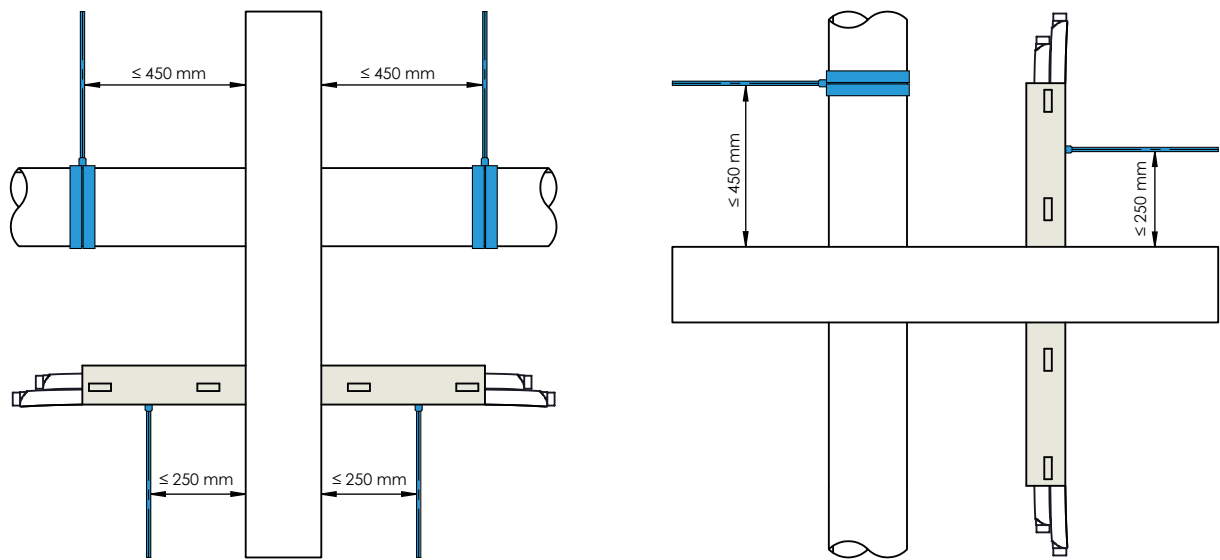


Our **Multiselector** can also be found in our **Mulcol Fire Protection App**.
It can be downloaded from the **App Store (iOS)** or **Google Play Store (Android)**.



4. Service support

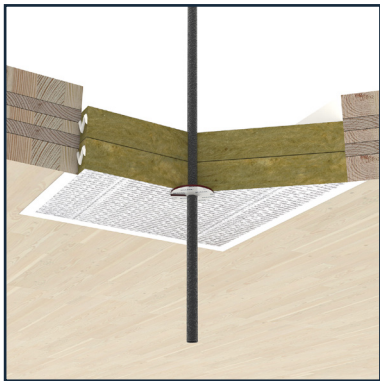
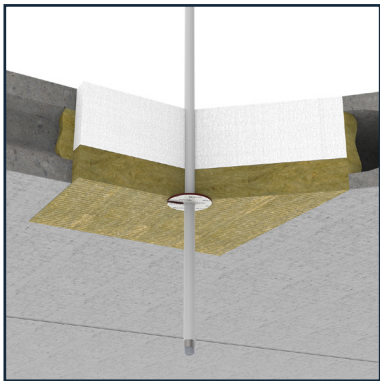
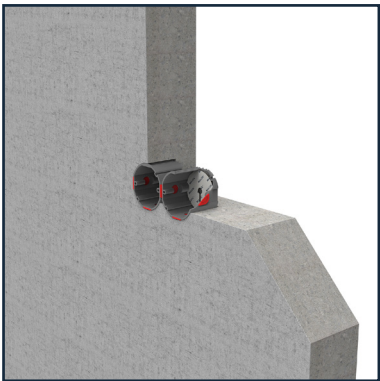
For all services (except cables and cable trays), the first support must be fitted ≤ 450 mm from the fire separating element, with cables and cable carriers at ≤ 250 mm. For floors the first support should be fitted at a distance of ≤ 450 mm from the top of the floor and for cables and cable carriers at ≤ 250 mm.



5. Pipe insulation (configuration)

Insulations serve different funtions and can therefor be arranged around pipes in different manners. This must be taken into account when applying fire stopping seals on these pipes. Possible configurations are shown below:

Continued Insulated		Locally Insulated	
Continued Sustained	Continued Interrupted	Locally Sustained	Locally interrupted



6. Test configuration

Introduction

The test configuration determines the application of service penetrations. Before testing a combustible or non-combustible pipe, the intended use must be considered. Where will it be used in practice? Standard EN 1366-3 sets requirements in this regard. The end of the pipe must be capped or uncapped, based on this. See the test configuration in table 1 and 2.

In a test, the conditions to which the pipe and the sealing system are exposed to are determined by asking whether one or both pipe ends are capped in practice. The pressure and flowrate of hot gases will be different in a pipe that is in contact with the outside air than in a capped pipe. It is important to ensure that the sealing system is tested under appropriate conditions.

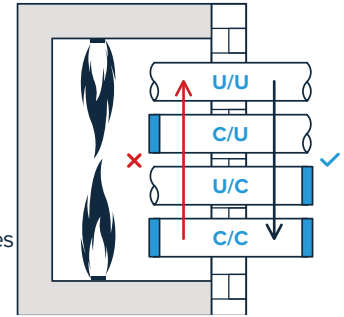


Table 1 - Test configuration plastic pipes

Test setup	Pipe end		Permitted use			
	In the oven	Outside the oven	U/U	C/U	U/C	C/C
U/U	Uncapped	Uncapped	✓	✓	✓	✓
C/U	Capped	Uncapped	✗	✓	✓	✓
U/C	Uncapped	Capped	✗	✗	✓	✓
C/C	Capped	Capped	✗	✗	✗	✓

Table 2 - Test configuration metal pipes

Test setup	Pipe end		Permitted use		
	In the oven	Outside the oven	U/C	C/U	C/C
U/C *	Uncapped	Capped	✓	✓	✓
C/U	Capped	Uncapped	✗	✓	✓
C/C	Capped	Capped	✗	✗	✓

Combustible pipes (plastic)

Table below shows a few examples of pipe types and the intended use, where the end of the pipe is capped or uncapped. The table does not take all possible applications into account. The choice of whether to close the end or leave it open depends on a number of aspects: is the system under pressure and it is ventilated or unventilated? Consider the intended use of the pipe to determine whether it should be capped or left uncapped. If national regulations set different requirements than those contained in the table below, follow the regulations.

Table - Test configuration plastic pipe by application

Type of pipe	Pipe end		Test setup
	In the oven	Outside the oven	
Rainwater drainage	Uncapped	Uncapped	U/U
Sewage, Ventilated	Uncapped	Uncapped	U/U
Sewage, Unventilated	Uncapped	Capped	U/C
Gas pipe, drinking water pipe, hot water pipe	Uncapped	Capped	U/C

There is no application for a plastic pipe penetration with a test classification of C/U or C/C, according to EN 1366-3.

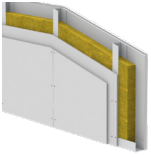
Non-combustible pipes (metal)

Metal pipes will normally be closed in the furnace as no open end is to be expected in the event of a fire, due to the high melting point of metal. With this, it is assumed that the service supporting construction remains in place. If the pipes are supported by a non fire resistant support system, the pipes are not closed in the furnace, as shown in the table below.

Table - Test configuration metal pipe by application

Type of pipe	Construction		Test setup
	In the oven	Outside the oven	
Supported by a fire supporting construction	Capped	Uncapped	C/U
Supported by a non fire supporting construction	Uncapped	Capped	U/C
Shafts for waste disposal	Uncapped	Capped	U/C

7. Constructions



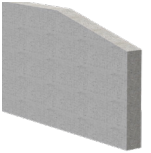
Flexible walls

The minimum wall thickness is 100 mm and consists of steel or timber studs* with at least 2 layers of cladding on both sides with a thickness of 12.5 mm per layer.



Flexible shaft walls

The minimum wall thickness is 100 mm and consists of steel or timber studs* with at least 2 layers of cladding on one side with a thickness of 15 (A2) or 20 (A1) mm per layer.



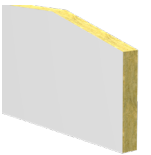
Rigid walls

The minimum wall thickness is 100 mm and consists of concrete, aerated concrete or brickwork with a minimum density of 400 kg/m³.



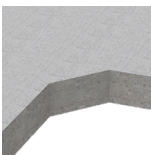
Cross laminated timber (CLT) walls

The minimum wall thickness is 100 mm and has a minimum density of 376 kg/m³.



Sandwich panel walls

The minimum wall thickness is 100 mm and consists of metal sheets with a stone wool core with a minimum density of 115 kg/m³.



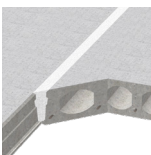
Rigid floors

The minimum floor thickness is 150 mm and consists of concrete or aerated concrete with a minimum density of 400 kg/m³.



Cross laminated timber (CLT) floors

The minimum floor thickness is 140 mm and has minimum density of 350 kg/m³.



Hollow core floors

The minimum floor thickness is 150 mm.

**There must be a minimum distance of 100 mm from each part of the conduit seal to a timber stud and the gap between the conduit seal and the stud must be capped. The cavity between the conduit seal and the stud must have at least 100 mm class A1 or A2 insulation (according to EN 13501-1).*

The construction must be classified in accordance with EN 13501-2 for the specified fire resistance.

We have tested different constructions with a variety of our products, check for specific allowed constructions Annex C in the respective ETA or find the specific solution via our Multiselector.

8. Available documents

Technical documents available

- ✓ Technical Data Sheet (TDS)
- ✓ Safety Data Sheet (SDS)
- ✓ CE certificate

Approvals

- ✓ Tested in accordance with EN 1366-3
- ✓ Classification in accordance with EN 13501-2
- ✓ Certified in accordance with EAD 350454-00-1104
- ✓ ETA report 24/0331
- ✓ VKF report 040070-00
- ✓ Declaration of Performance (DoP)
- ✓ EPD certificate

The above documents are available from your Mulcol contact or via www.mulcol.com

9. Tools



For help in finding the right firestopping solution for penetrations, see our **Multiselector** at www.mulcol.com or download the **Mulcol Fire Protection App** in the **App Store** (iOS) or **Google Play Store** (Android).



For the digital registration of firestopping in your buildings, you can use the **Mulcol Datamanager** free of charge. For registration on site, use our **Mulcol Fire Protection App**.



Make your project unique with the help of **Mulcol Project Manager**. In order to save costs, you can create a clear Project Book in the design phase, with cut-off details and relevant data for all firestop penetration seals on your construction project.



Mulcol International BV has compiled the technical data of this sheet with the utmost care and reserves the right to change product properties without prior notice. The user of this data remains responsible at all times for its correct application. In case of ambiguities or doubts, we advise you to consult with Mulcol International BV to ascertain whether this data meets the required application.

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