Insulation selection aid

Approved construction types of cable and combination insulation

Building Connections

OBO BETTERMANN

Just a few steps to the right OBO insulation system

This selection aid provides you with an overview of the different cable and combination insulation types from the OBO portfolio and supports you in finding the right system for your applications.

Observe ETAs and mounting instructions
The respective ETAs and mounting instructions must be observed for each system. They contain information on the assignment, the passed-through elements and spacing rules, which are to be complied with when installing the insulation.

The most common cable types

The table of the passed-through elements on the following pages is not exclusive and is intended to offer an initial idea of the most common cable types. Additional cable types can be specified in ETAs and mounting instructions.

- Hydraulic lines
- Beverage hoses
- Hollow conductor/coaxial cable
- Cable protection pipes for fibre-optic conductors
- Combinations of pipes and accompanying cables for air-conditioning systems
- Solar thermal lines/double solar pipes

Further information on this subject can be found in the ETAs and mounting instructions.

OBO imparts knowledge
For more information and training on our insulation systems, we offer webinars and on-spot seminars, either at your premises or at our campus at our headquarters in Menden.

OBO Academy: From the basic principle through to the concrete application

For many years, the OBO Academy has offered a comprehensive portfolio of seminars. "Advantage through knowledge" is not just a slogan here, but a promise: With first-hand information, a link to practical situations and expert knowledge, we can offer participants a decisive knowledge advantage. In our seminars, planner days or online seminars, we will bring you up to speed with current developments, trends, standards and regulations.

Key parameters for the installation of insulation systems

Here, you can find an overview of the relevant parameters for the installation of insulation systems.

Component strength
How thick is the wall or the ceiling?

Insulation thickness
How thick must the installed insulation be to achieve the required fire resistance class?

Insulation size
How large may the area of the insulation system be?

Maximum approved area of an insulation system
The maximum approved area of an insulation system can be determined at a glance using the following pictograms:

Large
1 m² or more

Medium
0.25 m² to 1 m²

Small
Up to 0.25 m²

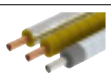
Please note: The appropriate ETAs and mounting instructions regulate the approved dimensions (width x height), so that the area data represents just rough guide values!

Applicability of the passed-through elements
The applicability of one of the passed-through elements (cable, electrical installation pipe, metal pipe, etc.) can be determined using the following pictograms:

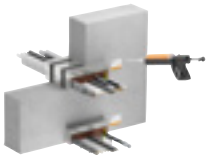
- Approved: The selected element can be passed through insulation.
- Approved with additional measures: The selected element can be run through the insulation, but must be combined with additional products (pipe sleeve, section insulation made of mineral wool, cable coil, etc.)
  Further information can be found in the ETAs and mounting instructions
- Not permitted: The element may not be passed through!

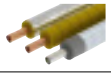
OBO Construct:
Planning fire insulation has never been simpler!

OBO Construct is a collection of a powerful planning modules, which were developed especially for electrical installation engineers and planners. The tool offers support for product configuration and offers a selection aid for matching systems. The OBO Construct module for fire insulation guides users to the matching insulation system via just a few questions. An additional documentation function means proof can be obtained with just a few clicks that the insulation was created correctly and in a manner conforming to the approval. Photos of labelling panels and fire protection approvals can be uploaded very easily. This allows OBO Construct to create flawless documentation and allows easy acceptance at the end of construction!

system		PYROMIX®	PYROPLATE® Fibre	PYROBAG®
View				
Insulation type		Mortar insulation	Soft insulation	Cushion insulation
Approval		ETA-17/0472	ETA-17/0364	ETA-18/1069
Construction type		Combination insulation	Combination insulation	Cable insulation
Installation locations				
Solid walls 	Max. insulation size*	≥ 2 m²	≥ 2 m²	approx. 1 m²
	Insulation thickness	150 mm	120 mm (2 layers) 240 mm (4 layers)	350 mm
	Min. component strength	150 mm	100 mm (2 layers) 240 mm (4 layers)	125 mm
	Fire resistance up to	EI120 150 mm thickness EI240 240 mm thickness	EI120 Two layers EI240 Four layers	EI90
Solid ceilings 	Max. insulation size*	≥ 2 m²	≥ 2 m²	approx. 1 m²
	Insulation thickness	150 mm	150mm (2 layers) 240 mm (4 layers)	350 mm
	Min. component strength	150 mm	150 mm (2 layers) 200 mm (4 layers)	150 mm
	Fire resistance up to	EI120 150 mm thickness EI240 240 mm thickness	EI120 Two layers EI240 Four layers	EI90
Lightweight partitions 	Max. insulation size*	✗	≥ 2 m²	approx. 1 m²
	Insulation thickness		120 mm (2 layers only)	350 mm
	Min. component strength		100 mm (2 layers only)	125 mm
	Fire resistance up to		EI120 Two layers	EI90
Permitted installations				
	Cable	✓	✓	✓
	Cable bundle	+	✓	✓
	Plastic conduit, rigid	+	✗	✗
	Plastic conduit, flexible	+	+	✗
	Bundle of plastic conduit	+	+	✗
	Steel conduit	✗	✗	✗
	Cable support systems	✓	✓	✓
	Metal pipes with section insulation	+	✓	✗
	Plastic pipes (for heating and sanitary)	+	+	✗

* Depending on thickness and installations

PYROSIT® NG	PYROPLUG® MagicBox	PYROPLUG® Block	PYROPLUG® Peg
			
Fire protection foam	Fire protection box	Foam block	Foam plug
ETA-11/0527	ETA-22/0175	ETA-15/0803	ETA-15/0701
Combination insulation	Combination insulation	Combination insulation	Cable insulation
approx. 0.25 m²	approx. 0.25 m² as group	approx. 0,6 m²	Ø 25 cm
200 mm	300 mm	200 mm	≥ 170 mm
100 mm	100 mm	100 mm	100 mm
EI90	EI90	EI120	EI120
approx. 0.2 m²	approx. 0.25 m² as group	≥ 2 m²	Ø 25 cm
200 mm	300 mm	200 mm	≥ 170 mm
150 mm	150 mm	150 mm	150 mm
EI90	EI90	EI120	EI120
approx. 0.25 m²	approx. 0.25 m² as group	approx. 0.6 m²	Ø 25 cm
200 mm	300 mm	200 mm	≥ 170 mm
94 mm	94 mm	94 mm	100 mm
EI90	EI90	EI120	EI120
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✗
✓	✓	✓	✗
✓	✓	✓	✓
✓	✓	✓	✓
✓	+	✓	✗
+	+	✓	✗

system	PYROCOMB® Intube	PYROCOMB® Intube HP	PYROCOMB® Tubes
View			
Insulation type	Pipe shells	Pipe shells	Pipe sleeves
Approval	ETA-13/0904	ETA-13/0904	ETA-12/0207
Construction type	Cable insulation	Cable insulation	Cable insulation
Installation locations			
Solid walls 			
Max. insulation size*	approx. Ø 16 cm	approx. 0.01 m²	approx. Ø 16 cm
Insulation thickness	≥ 150 mm	200 mm	100 mm
Min. component strength	150 mm	150 mm	100 mm
Fire resistance up to	EI120	EI120	EI120
Solid ceilings 			
Max. insulation size*	approx. Ø 16 cm	✗	approx. Ø 16 cm
Insulation thickness	≥ 150 mm		150 mm
Min. component strength	≥ 125 mm		150 mm
Fire resistance up to	EI120		EI120
Lightweight partitions 			
Max. insulation size*	approx. Ø 16 cm	approx. 0.01 m²	approx. Ø 16 cm
Insulation thickness	≥ 150 mm	200 mm	94 mm
Min. component strength	100 mm	100 mm	94 mm
Fire resistance up to	EI120	EI120	EI120
Permitted installations			
 Cable	✓	✓	+
 Cable bundle	✓	✓	✗
 Plastic conduit, rigid	✗	✗	✗
 Plastic conduit, flexible	✓	✓	✓
 Bundle of plastic conduit	✓	✓	✓
 Steel conduit	✗	✗	✗
 Cable support systems	✗	✗	✗
 Metal pipes with section insulation	✗	✗	✗
 Plastic pipes (for heating and sanitary)	+	✗	✗

* Depending on thickness and installations

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