

## TRUTEK MIA – Metal Insulation Anchors Carbon steel & Stainless Steel

#### Usage:

- MIA anchors are intended for fixing insulation boards, e.g. expanded polystyrene, EPS polystyrene, MW mineral wool boards, PUR polyurethane or PIR polyisocyanurate foam boards
- Fixing soft mineral wool insulation boards using MIA85W and MIA85WSS pressure plates with a diameter of 85mm
- fixing thermal insulation boards in various types of construction substrates, such as concrete, solid and silicate ceramic bricks, silicate blocks with holes, Porotherm porous blocks, lightweight concrete blocks and aerated concrete

## **Advantages:**

Metal Insulation

Anchor

MIA

- a wide range of applications in various construction substrates and with various insulation materials
- the possibility of using the MIA85W and MIA85WSS pressure plates in the case of soft insulating materials
- non-combustible anchor for fixing fireproof insulation boards
- in the case of aerated concrete, fixing without the need to drill a hole
- corrosion resistance in the case of the anchor version made of stainless steel

Anchor Length

[mm]

090



Anchor Material:

MIA anchors and MIA85W pressure plates are made of DX51D carbon steel, galvanized, min. 5μm. MIA SS anchors and MIA85WSS pressure plates are made of corrosion-resistant stainless steel, grade F1-45.

#### Base material:

Concrete class min. C20/25 to C50/60, solid and silicate ceramic bricks, silicate blocks with holes, Porotherm porous blocks, aerated concrete.





## **TECHNICAL PARAMETERS MIA & MIA SS**

**Anchor Marking MIA** 

Hole Diameter

[mm]

8

Product Code		Anchor Diameter	Hole Diameter	Anchor Length	Washer Diameter	Minimum Effective Embedment Concrete C20/C25 C50/C60	Maximum Thickness of Insulation in Concrete	Minimum Effective Embedment Substrates and Masonary	Maximum Thickness of Insulation in Substrates and Masonary
		d [mm]	d₀ [mm]	L[mm]	D [mm]	h <sub>ef</sub> [mm]	h₀[mm]	h <sub>ef</sub> [mm]	h₀[mm]
MIA08090	MIA08090SS			90			50		40
MIA08110	MIA08110SS			110			70		60
MIA08140	MIA08140SS			140			100		90
MIA08170	MIA08170SS	9	8	170	35	40	130	50	110
MIA08200	MIA08200SS			200			160		150
MIA08250	MIA08250SS	]		250	]		210		200
MIA08300	MIA08300SS			300			260		250

Stainless Steel Version

SS

\*in the case of aerated concrete, no hole is made in the substrate

\*\* approximate values for surface mounting and 10mm adhesive layer thickness

\*\*\*full ceramic and silicate brick class 15, porous and silicate ceramic hollow bricks class 15, aerated concrete class 4



## **TECHNICAL PARAMETERS MIAW & MIAWSS**

Product Code	Washer Diameter [mm]	Washer Thickness [mm]	
MIA85W	0F	0,70	
MIA85WSS	65		



## Design pull-out and shear loads\* of MIA and MIA SS anchors in C20/25 concrete

Designation	MIA	MIA SS
Hole diameter d₀[mm]	8	8
Hole depthh <sub>1</sub> [mm]	50	50
Effective anchorage depth hef [mm]	40	40
Design pull-out resistance Nsd [kN]	0,55	0,61
Shear design resistanceV <sub>sd</sub> [kN]	0,80	0,88
Minimum anchor spacing S <sub>min</sub> [mm]	60	60
Minimum edge distance C <sub>min</sub> [mm]	120	120
Minimum thickness of the substrate hmin [mm]	80	80

\*When designing, the entire National Technical Assessment ITB-KOT-2023/2392 issue 1 should be taken into account

### Design pull-out and shear loads\* of MIA and MIA SS anchors in masonry

Designation	MIA	MIA SS
Hole diameter d <sub>o</sub> [mm]	8	8
Hole depth h <sub>1</sub> [mm]	60	60
Effective anchorage depth h <sub>ef</sub> [mm]	50	50
Design pull-out resistance in full ceramic and silicate bricks, class 15 Nsd [kN]	0,38	0,40
Design shear resistance in solid ceramic and silicate bricks, class 15 Vsd [kN]	0,38	0,40
Design pull-out resistance in porous ceramic hollow brick class 15 N <sub>sd</sub> [kN]	0,08	0,12
Design shear resistance in porous ceramic brick class 15 Vsd [kN]	0,08	0,12
Design pull-out resistance in silicate block class 15 Nsd [kN]	0,18	0,22
Design shear resistance in silicate block class 15 Vsd [kN]	0,18	0,22
Design pull-out resistance in aerated concrete class 4 Nsd [kN]	0,38	0,40
Design shear resistance in aerated concrete class 4 Vsd [kN]	0,38	0,40
Minimum anchor spacing S <sub>min</sub> [mm]	75	75
Minimum edge distance C <sub>min</sub> [mm]	150	150
Minimum thickness of the substrate hmin [mm]	80	80

\*When designing, the entire National Technical Assessment ITB-KOT-2023/2392 issue 1 should be taken into account

# Characteristic pull-out loads\* of MIA and MIA SS anchors for fire exposure in concrete C20/25 - C50/60

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Designation	MIA & MIA SS
Effective anchoring depth hef [mm]	40
Pull-out capacity R30 F <sub>Rk,fi</sub> [kN]	0,20
Pull-out capacity R60 F <sub>Rk,fi</sub> [kN]	0,20
Pull-out capacity R90 F <sub>Rk,fi</sub> [kN]	0,20
Pull-out capacity R120 F <sub>Rk,fi</sub> [kN]	0,20
Anchor Spacing S <sub>cr,fi</sub> [mm]	160
Edge Spacing C <sub>cr,fi</sub> [mm]	120
Minimum thickness of the substrate h <sub>min</sub> [mm]	80

\*When designing, the entire National Technical Assessment ITB-KOT-2023/2392 issue 1 should be taken into account

## **INSTALLATION OF MIA & MIASS**

