

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:

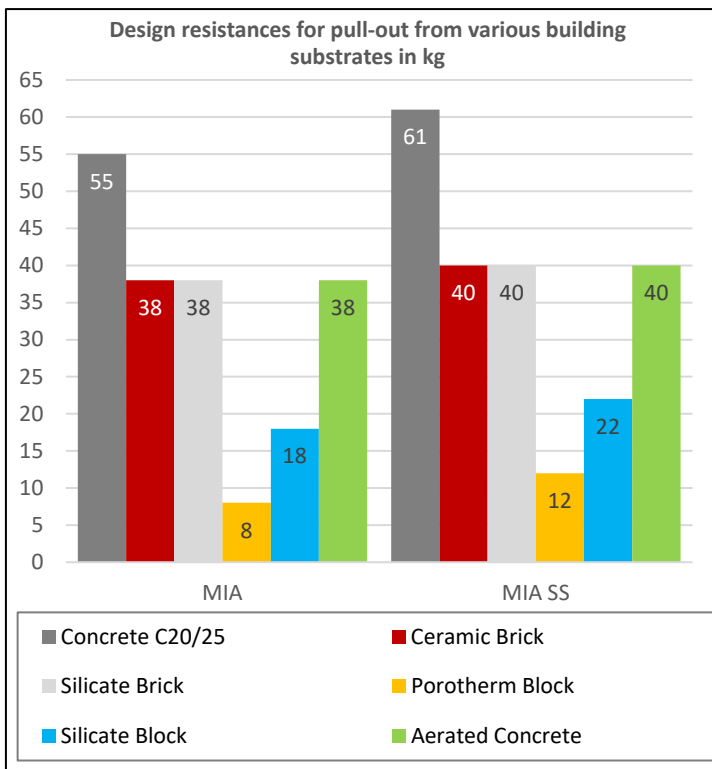
- a wide range of applications in various construction substrates and with various insulation materials
- the possibility of using the MIA85W and MIA85WSS pressure plates in the case of soft insulating materials
- non-combustible anchor for fixing fireproof insulation boards
- in the case of aerated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

Anchor 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.



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R120

Anchor Marking MIA			
Metal Insulation Anchor	Hole Diameter [mm]	Anchor Length [mm]	Stainless Steel Version
MIA	8	090	SS

TECHNICAL PARAMETERS MIA & MIA SS

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]	d _o [mm]	L [mm]	D [mm]	h _{ef} [mm]	h _o [mm]	h _{ef} [mm]	h _o [mm]
MIA08090	9	8	90	35	40	50	50	40
MIA08110			110			70		60
MIA08140			140			100		90
MIA08170			170			130		110
MIA08200			200			160		150
MIA08250			250			210		200
MIA08300			300			260		250

*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	85	0,70
MIA85WSS		



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

Designation	MIA	MIA SS
Hole diameter d_o [mm]	8	8
Hole depth h_1 [mm]	50	50
Effective anchorage depth h_{ef} [mm]	40	40
Design pull-out resistance N_{Sd} [kN]	0,55	0,61
Shear design resistance V_{Sd} [kN]	0,80	0,88
Minimum anchor spacing S_{min} [mm]	60	60
Minimum edge distance C_{min} [mm]	120	120
Minimum thickness of the substrate h_{min} [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_o [mm]	8	8
Hole depth h_1 [mm]	60	60
Effective anchorage depth h_{ef} [mm]	50	50
Design pull-out resistance in full ceramic and silicate bricks, class 15 N_{Sd} [kN]	0,38	0,40
Design shear resistance in solid ceramic and silicate bricks, class 15 V_{Sd} [kN]	0,38	0,40
Design pull-out resistance in porous ceramic hollow brick class 15 N_{Sd} [kN]	0,08	0,12
Design shear resistance in porous ceramic brick class 15 V_{Sd} [kN]	0,08	0,12
Design pull-out resistance in silicate block class 15 N_{Sd} [kN]	0,18	0,22
Design shear resistance in silicate block class 15 V_{Sd} [kN]	0,18	0,22
Design pull-out resistance in aerated concrete class 4 N_{Sd} [kN]	0,38	0,40
Design shear resistance in aerated concrete class 4 V_{Sd} [kN]	0,38	0,40
Minimum anchor spacing S_{min} [mm]	75	75
Minimum edge distance C_{min} [mm]	150	150
Minimum thickness of the substrate h_{min} [mm]	80	80

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



Designation	MIA & MIA SS
Effective anchoring depth h_{ef} [mm]	40
Pull-out capacity R30 $F_{Rk,fi}$ [kN]	0,20
Pull-out capacity R60 $F_{Rk,fi}$ [kN]	0,20
Pull-out capacity R90 $F_{Rk,fi}$ [kN]	0,20
Pull-out capacity R120 $F_{Rk,fi}$ [kN]	0,20
Anchor Spacing $S_{cr,fi}$ [mm]	160
Edge Spacing $C_{cr,fi}$ [mm]	120
Minimum thickness of the substrate h_{min} [mm]	80

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

INSTALLATION OF MIA & MIASS

