Working loads / concrete / solid blocks

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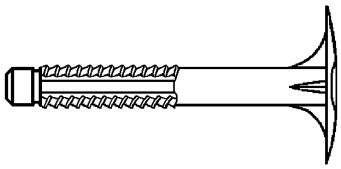
Plug description

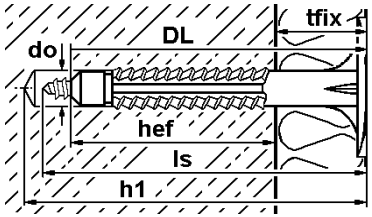
Measures (mm); **subsoil** / masonry; **working loads** ($F_{rec.}$) in **kN** of a plug with the widest screw Ø, for tensile, shear and diagonal force under each angle. The working loads include a safety factor (Y). For plastic plugs a constant tensile force is only allowed as diagonal force.

Insulation fixing DD-MV



Wood screw with T25 support

Chip board screw with T 25 support



Expands in concrete and solid blocks

Plug size Ø x D_L		8/80 - 8/140 (mm)	10/100 - 10/160 (mm)
Drill Ø	d_o	8	10
Drill hole depth	$\geq h_1$	90 - 150	110 - 170
Anchorage depth	$\geq h_{ef}$	50	60
Component thickness	$\geq_{fix}$	30 - 90	40 - 100
Wood screws Ø		**5,5**	**-**
Chip board screws Ø		**-**	**6**
Concrete		**Working loads kN** [1 kN = 100 kp]	
≥ C20/25	$F_{rec.}$	0,35	0,35
(B25)			
Solid blocks		**Working loads kN** [1 kN = 100 kp]	
≥ Mz 12	$F_{rec.}$	0,35	0,35
≥ KS 12	$F_{rec.}$	0,35	0,35
V 2	$F_{rec.}$	0,30	0,30
V 4	$F_{rec.}$	0,35	0,35

	Application criteria	
Type	Plastic plug	
Through-insertion	●	● suitable
Immediately loadable	●	O suitable to a limited
Removable flush to surface	O	extent
Small edge distance / axial spacing	-	
Temperature resistance	- 40°C to + 70°C	

Please note: The transmission of the anchoring loads in the component has to be proved. All measures and loads have to be checked on-site.

Solid blocks: Mz = Solid brick; KS = Solid sand lime brick; V = Solid blocks made of lightweight concrete;

12.04.11

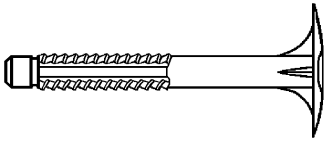
Working loads / Perforated bricks / Hollow blocks made of lightweight concrete

This document can not be considered as binding

Plug description

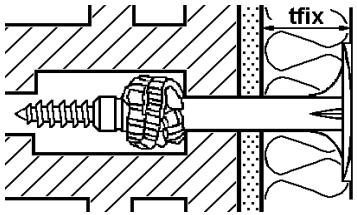
Measures (mm); **subsoil** / masonry; **working loads** ($F_{rec.}$) in **kN** of a plug with the widest screw Ø, for tensile, shear and diagonal force under each angle. The working loads include a safety factor (Y). For plastic plugs a constant tensile force is only allowed as diagonal force.

Insulation fixing DD-MV



Wood screw with T25 support

Chip board screw with T 25 support



Knots in perforated bricks / hollow blocks made of lightweight concrete

Plug size Ø x D_L		8/80 - 8/140 (mm)	10/100 - 10/160 (mm)
Drill Ø	d_o	8	10
Drill hole depth	$\leq h_1$	90 - 150	110 - 170
Anchorage depth	$\geq h_{ef}$	50	60
Component thickness	$\leq t_{fix}$	30 - 90	40 - 100
Through-insertion			
Wood screws Ø		**5,5**	**-**
Chip board screws Ø		**-**	**6**
Perforated bricks / Hollow blocks made of lightweight concrete		**Working loads kN** [1 kN = 100 kp]	
≥ Hlz 12	$F_{rec.}$	0,30	0,30
≥ KSL 12	$F_{rec.}$	0,40	0,40
≥ Hbl 2	$F_{rec.}$	0,30	0,35

	Application criteria	
Type	Plastic plug	● suitable
Through-insertion	●	○ suitable to a limited
Immediately loadable	●	extent
Removable flush to surface	○	
Small edge distance / axial spacing	-	
Temperature resistance	- 40°C to + 70°C	

Please note: The transmission of the anchoring loads in the component has to be proved. All measures and loads have to be checked on-site.

Perforated bricks: Hlz = Vertically perforated brick; KSL = Perforated sand lime brick; Hollow block: Hbl = Hollow blocks made of lightweight concrete;

12.04.11