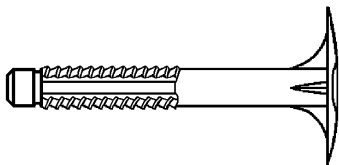


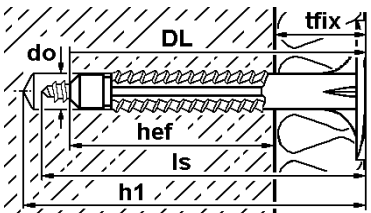


# Working loads / concrete / solid blocks

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 $\emptyset$ , 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.	
<p><b>Insulation fixing DD-MV</b></p>  <p>Wood screw with T25 support</p>  <p>Chip board screw with T 25 support</p>   <p>Expands in concrete and solid blocks</p>	<b>Plug size</b> $\emptyset \times D_L$	<b>8/80 - 8/140</b> (mm)	<b>10/100 - 10/160</b> (mm)
	Drill $\emptyset$ $d_o$	8	10
	Drill hole depth $\geq h_1$	90 - 150	110 - 170
	Anchorage depth $\geq h_{ef}$	50	60
	Component thickness $\geq t_{fix}$	30 - 90	40 - 100
	Wood screws $\emptyset$	<b>5,5</b>	-
	Chip board screws $\emptyset$	-	<b>6</b>
	<b>Concrete</b>	<b>Working loads kN [1 kN = 100 kp]</b>	
	$\geq$ C20/25 (B25) $F_{rec.}$	0,35	0,35
	<b>Solid blocks</b>	<b>Working loads kN [1 kN = 100 kp]</b>	
	$\geq$ Mz 12 $F_{rec.}$	0,35	0,35
	$\geq$ KS 12 $F_{rec.}$	0,35	0,35
	V 2 $F_{rec.}$	0,30	0,30
	V 4 $F_{rec.}$	0,35	0,35
	Type	Application criteria	
Through-insertion	Plastic plug		
Immediately loadable	●	● suitable	
Removable flush to surface	○	○ suitable to a limited extent	
Small edge distance / axial spacing	-		
Temperature resistance	- 40°C to + 70°C		

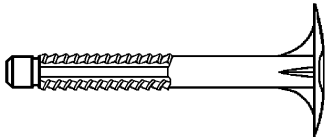


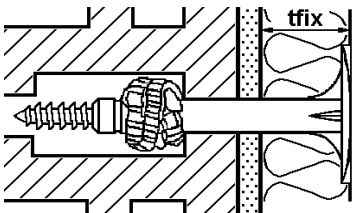
**Please note:** The transmission of the anchoring loads in the component has to be proved. All measures and loads have to be checked on-site.

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

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

This document can not be considered as binding



Plug description	Measures (mm); <b>subsoil</b> / masonry; <b>working loads</b> ( $F_{rec.}$ ) in <b>kN</b> of a plug with the widest screw $\emptyset$ , for tensile, shear and diagonal force under each angle. The working loads include a safety factor ( $\gamma$ ). For plastic plugs a constant tensile force is only allowed as diagonal force.					
<b>Insulation fixing DD-MV</b>    Wood screw with T25 support	<b>Plug size</b> $\emptyset \times D_L$	<b>8/80 - 8/140</b> (mm)	<b>10/100 - 10/160</b> (mm)			
					Drill $\emptyset$	8
	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 $\emptyset$		<b>5,5</b>		-	
  Chip board screws $\emptyset$		-	<b>6</b>			
  Chip board screw with T 25 support	<b>Perforated bricks / Hollow blocks made of lightweight concrete</b>	<b>Working loads kN</b> [1 kN = 100 kp]				
		$\geq$ <b>Hlz 12</b>	$F_{rec.}$		0,30	0,30
		$\geq$ <b>KSL 12</b>	$F_{rec.}$		0,40	0,40
		$\geq$ <b>Hbl 2</b>	$F_{rec.}$		0,30	0,35
  Knots in perforated bricks / hollow blocks made of lightweight concrete						
	Type		Application criteria			
	Through-insertion		Plastic plug		● suitable	
	Immediately loadable		●		○ suitable to a limited 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;