

# **TOGE TSM BC**

Parapet anchor for fastening of scaffolding and forwork in

renovation areas

### **High Loads**

High load bearing capacity in cracked and non-cracked concrete.

#### Frost proof

Sealing the borehole prevents water penetration and frost damage in winter.

### Fast and safe installation

The optimized thread enables a quick and easy embedment process.

#### **Immediate Load**

Immediately loadable directly after installation

#### Sustainable

Reusability of the fastening part.

# **Approval**

### **Approval**

General technical approval Z-21.8-2048.

#### **Base Materials**

Application in cracked and non-cracked concrete of strength classes from C20/25 to C50/60.



# **Headshapes & Materials**



Steel, zinc plated

Steel, anticorrosion-coated TOGE KORR Steel, stainless A4



Sleeve with female thread TSM BC 22x75 IM 16 KA





Connector M24x100 KA



TOGE KORR



Connector with female thread DW15 IG KA



TOGE KORR



Injection mortar and accessories

# **Application Examples**

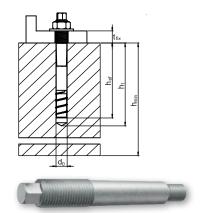


Fixing scaffolding and formwork in the renovation area

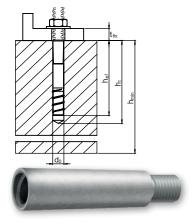
### **Product Overview**



### **Steel - anti-corrosion coated, TOGE KORR**







Connector with female thread DW15 IG KA

V / 25 / V	1111
W 1 %	

Sleeve with female thread TSM BC 22x75 KA

Item nr.	Designation	Depth of drill hole h <sub>0</sub>	Embedment depth of anchor h <sub>nom</sub>	Max. thickness of fixture $\mathbf{t}_{\mathrm{fix}}$	Packing Unit
742 220 750	TSM BC 22x75 IM 16 KA	160 mm	150mm	-	20
742 241 000	Connector M24x100 KA	-	-	-	20
742 150 000	Connector DW15 IG KA	-	-	-	20

### **Composite Mortar CF-T 300V**

Chemical special mortar, vinylesther styrene-free, suitable for concrete screws



Item nr.	Designation	Packing Unit
222 222 003	Cartridge CF-T 300 V	1
222 223 001	Mixing nozzle for CF-T 300 V	1
222 222 004	Squeezing pistol for CF-T 300 V	1



# **Processing instructions composite mortar**

Temperature in ground	Processing Time	Min. curing time in dry borehole	Min. curing time in wet borehole
≥ -5°C	60 min	360 min	720 min
≥ 0°C	60 min	180 min	360 min
≥ 5°C	60 min	120 min	240 min
≥ 10°C	45 min	80 min	160 min
≥ 20°C	15 min	45 min	90 min
≥ 30°C	5 min	25 min	50 min
≥ 35°C	4 min	20 min	40 min

### **Technical characteristics**



# Installation of parapet anchor with connector M24 according to Z-21.8-2048

Anchor size			TSM BC 22
Screw length	L	[mm]	75
Nominal diameter of drill bit	d <sub>o</sub>	[mm]	22
Depth of drill hole	h <sub>o</sub> ≥	[mm]	160
Effective anchorage depth	h <sub>ef</sub>	[mm]	150
Diameter of clearance hole in the fixture	d <sub>f</sub> ≤	[mm]	28
Installation torque (for metrical thread)	T <sub>inst</sub>	[mm]	80
Minimum edge distance	C <sub>min</sub> ≥	[mm]	225
Minimum spacing	S <sub>min</sub> ≥	[mm]	450
Minimum basement thicknesss	h <sub>min</sub> ≥	[mm]	200
Hexagon drive for mounting the screws	SW	[Nm]	17
Permissible tension load in cracked concrete C20/25 <sup>1) 2)</sup>	N <sub>Rd,c</sub> ≥	[kN]	48,7
Permissible tension load in cracked concrete > C20/25 <sup>1) 2)</sup>	N <sub>Rd,s</sub>	[kN]	51,3
Design value of shear force for steel failure without lever arm <sup>1) 2)</sup>	$V_{Rd,s}$	[kN]	69,3
Rated torque of the tangential screwdriver	Т	[Nm]	≤ 650

# Installation of parapet anchor with connector GW15 according to Z-21.8-2048

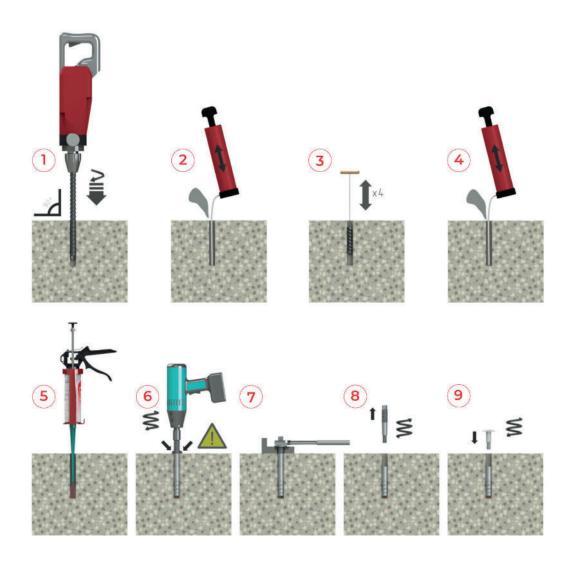
Anchor size			TSM BC 22
Screw length	L	[mm]	75
Nominal diameter of drill bit	d <sub>o</sub>	[mm]	22
Depth of drill hole	h₀≥	[mm]	160
Effective anchorage depth	h <sub>ef</sub>	[mm]	150
Diameter of clearance hole in the fixture	d <sub>f</sub> ≤	[mm]	17
Installation torque (for metrical thread)	T <sub>inst</sub>	[mm]	80
Minimum edge distance	C <sub>min</sub> ≥	[mm]	225
Minimum spacing	S <sub>min</sub> ≥	[mm]	450
Minimum basement thicknesss	h <sub>min</sub> ≥	[mm]	200
Hexagon socket drive for mounting the screws	SW	[Nm]	12
Permissible tension load in cracked concrete C20/25 <sup>1) 2)</sup>	N <sub>Rd,c</sub> ≥	[kN]	48,7
Permissible tension load in cracked concrete > C20/25 <sup>1) 2)</sup>	N <sub>Rd,s</sub>	[kN]	51,3
Design value of shear force for steel failure without lever arm <sup>1) 2)</sup>	$V_{Rd,s}$	[kN]	33,4
Rated torque of the tangential screwdriver	Т	[Nm]	≤ 650

 $<sup>^{</sup> extstyle 1}$  FTo determine the permissible load, the partial safety factor from the approval was taken into account on the resistance side.

<sup>&</sup>lt;sup>2)</sup> The specified values apply regardless of center and edge distances.

### **Installation Instructions**





- 1) Drill a hole perpendicular to the concrete surface.
- 2) Thoroughly blow out the borehole.
- 3) Brush the borehole 4x.
- 4) Thoroughly clean the borehole again.
- 5) Inject composite mortar.
- 6) Screw in screws with an impact screwdriver. After reaching the screw-in depth, the composite mortar must emerge at the concrete surface.
- 7) Fix the attachment.
- 8) After work, the screw-in aid can be easily unscrewed.
- 9) Seal the hole left behind with the screw cap.