

fischer 

Epoxy Mortar FIS EP



Epoxy Mortar for Applications in Concrete

FIS EP is suitable for non-cracked and **cracked concrete** (C20/25 to C50/60)



Suitable for use with anchor rods **FIS A** and **Rebars**



Available in **390ml** and **585 ml** cartridges

Can be installed in **dry and wet concrete**

Contains **less harmful material** – favourable label

Shelf life **18 months**



Epoxy Mortar FIS EP

Static Mixer FIS MR Plus

Item	Art. No.	Languages on Contents the cartridge	Sales unit	Sales unit [pcs]
FIS EP 585 S	553514	PT, ES, EN	1 cartridge 585 mL, 1 x FIS MR Plus	14

Processing and curing time

Temperature at anchoring base	Processing time	Curing time ¹⁾
+ 5 °C - 9 °C	180 min.	96 hrs.
+10 °C - +14 °C	90 min.	48 hrs.
+15 °C - +19 °C	60 min.	36 hrs.
+20 °C - +29 °C	30 min.	24 hrs.
+30 °C - +40 °C	15 min.	12 hrs.

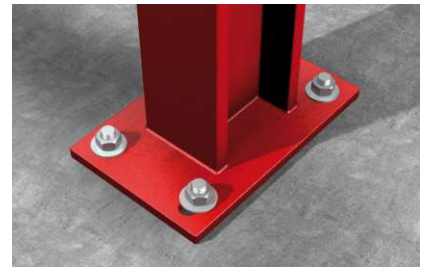
fischer chemical anchors

Applications

- Columns
- Beams
- Shear dowels
- Starter bars

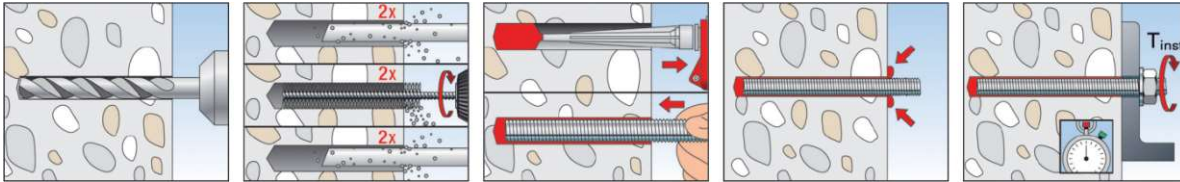


Column Bases

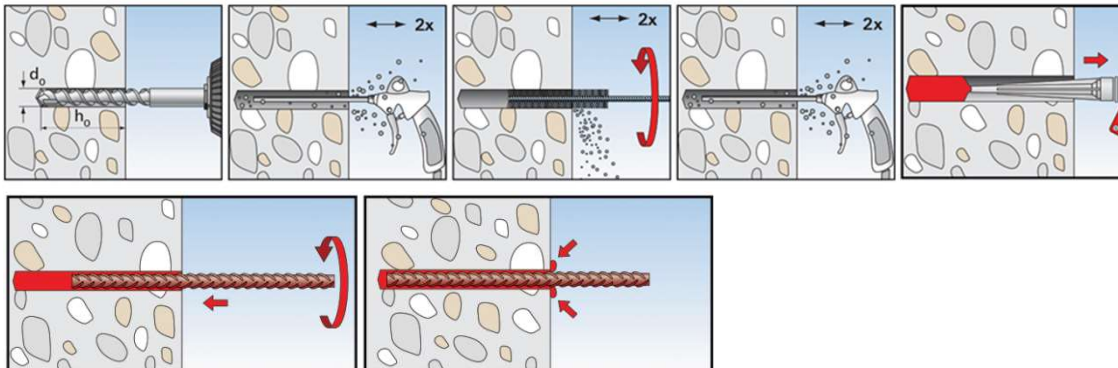


Steel Girders

Installation in concrete with FIS EP and FIS A



Installation in concrete with FIS EP and Rebars



Building materials

Suitable for: Concrete C20/25 to C50/60, non-cracked and cracked

Advantages

- FIS EP is the economical epoxy resin mortar for applications in concrete that do not require approval.
- The epoxy mortar FIS EP can also be used in cracked concrete for construction site for the convenient installation.
- With the anchor rod FIS A / Rebars, the loads to be introduced can be selected variably by choosing the anchorage depth.
- FIS EP can be used for smooth installation with the standard fischer accessories.
- FIS EP can be installed for the rock anchoring applications.

Functioning

- The epoxy mortar FIS EP combined with the FIS A threaded rod / Rebar, is suitable for pre-positioned and push-through installation.
- Resin and hardener are stored in two separate chambers, thus are not mixed and activated until extrusion through the static mixer.
- The mortar bonds the entire surface of the anchor with the drill hole wall and seals off the drill hole.
- The anchor is set manually by slightly rotating it until the anchor reaches the drill hole base.
- During push-through installation, the annular gap is filled with FIS EP.

Loads

Injection system FIS EP with threaded rod FIS A / RGM / Rebar (Strength grade 5.8 / Fe 415)

Highest recommended loads of a single anchor¹⁾⁴⁾ in normal concrete of strength class C20/25.

Design method according to EN 1992-4.

Dia [mm]	Effective anchorage depth h_{ef} [mm]	Minimum member thickness h_{min} [mm]	Maximum instal- lation torque $T_{inst,max}$ [Nm]	Cracked concrete				Non-cracked concrete			
				Recommended tension- (N_{rec}), shear loads (V_{rec}), minimum spacing- (s_{min}) and edge distance (c_{min})				Recommended tension- (N_{rec}), shear loads (V_{rec}), minimum spacing- (s_{min}) and edge distance (c_{min})			
				$N_{rec}^{3)}$ [kN]	$V_{rec}^{3)}$ [kN]	$s_{min}^{2)}$ [mm]	$c_{min}^{2)}$ [mm]	$N_{rec}^{3)}$ [kN]	$V_{rec}^{3)}$ [kN]	$s_{min}^{2)}$ [mm]	$c_{min}^{2)}$ [mm]
8	60	100	10	-	-	-	-	5,4	5,1	40	40
	160	190	10	-	-	-	-	9,0	5,1	40	40
10	60	100	20	-	-	-	-	6,4	8,6	45	45
	200	230	20	-	-	-	-	13,8	8,6	45	45
12	70	100	40	4,2	10,0	55	55	8,4	12,0	55	55
	240	270	40	14,4	12,0	55	55	20,5	12,0	55	55
16	80	120	60	6,4	15,3	65	65	12,0	22,3	65	65
	320	360	60	25,5	22,3	65	65	37,6	22,3	65	65
20	90	140	120	9,0	21,5	85	85	15,7	34,9	85	85
	400	450	120	39,9	34,9	85	85	58,6	34,9	85	85
24	96	160	150	-	-	-	-	17,2	41,3	105	105
	480	540	150	-	-	-	-	84,3	50,9	105	105
27	108	170	200	-	-	-	-	20,0	48,0	120	120
	540	600	200	-	-	-	-	99,9	65,7	120	120
30	120	190	300	-	-	-	-	24,7	59,2	140	140
	600	670	300	-	-	-	-	123,4	80,6	140	140

¹⁾ The partial safety factors for material resistance and a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. As an single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$.

²⁾ Further steel grades by request.

³⁾ In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the EN 1992-4.

⁴⁾ The specified loads are valid for anchorages in dry and damp concrete. The factor Ψ_{SUS} was taken into account with 1.0.