

FIS EP.

The cost-efficient epoxy
mortar for applications
in concrete.



The cost-efficient epoxy mortar for applications in concrete.



FIS EP
The cost-efficient epoxy mortar for applications in concrete.



FIS MR Plus
The static mixer for fischer injection cartridges.



FIS A
The flexible anchor rod FIS A.



Steel concrete bar

Building materials

Approved for:



Non-cracked concrete
C20/C25 to C50/C60

Certificates / Features



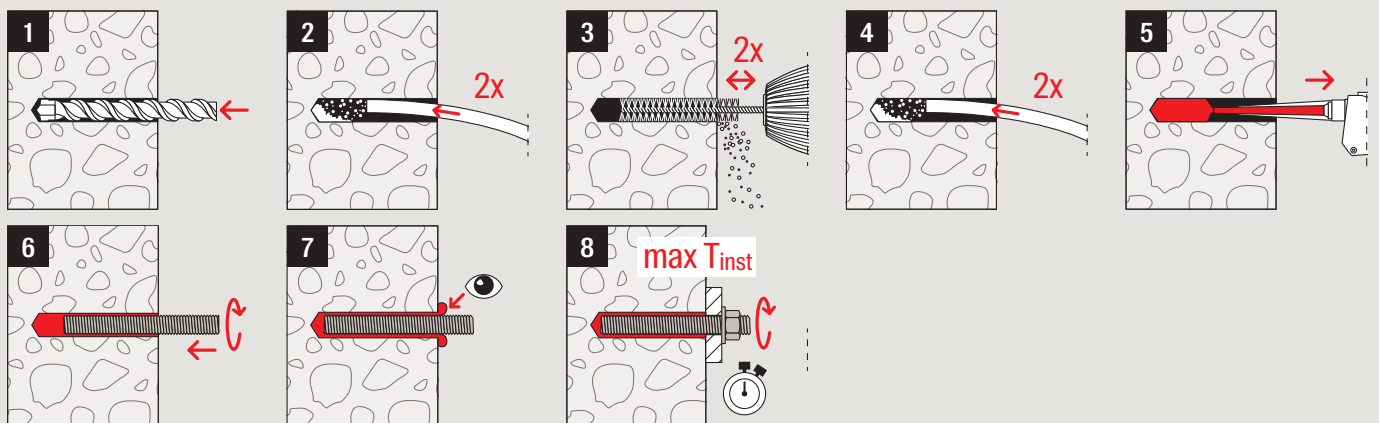
ETA-24/0960
for non-cracked concrete

Functionality and installation

Functionality

- The epoxy mortar FIS EP combined with the FIS A threaded rod is suitable for pre-positioned and push-through installation and for pre-positioned installation with rebars.
- Resin and hardener are stored in two separate chambers, thus are not mixed and activated until extrusion through the static mixer.
- The mortar is injected bubble-free from the drill-hole base.
- 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.

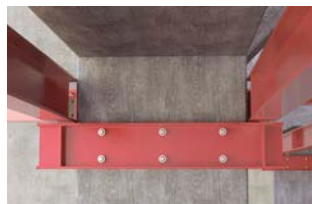
Installation



Applications



Columns



Beams

Advantages at a glance

- The FIS EP is the economical epoxy resin mortar for applications in non-cracked concrete.
- With the anchor rod FIS A, the anchorage depth can be selected variably which allows for ideal adaptation to the load to be applied.
- The FIS EP can be used for smooth installation with the standard fischer accessories.

Characteristics and loads

Processing and curing times FIS EP

FIS EP		
Temperatures at anchoring base [°C]	Maximum processing time t_{work}	Minimum curing time ¹⁾ t_{cure}
+5 to +10	180 min.	96 h
≥+10 to +15	90 min.	60 h
≥ +15 to +20	60 min.	36 h
≥ +20 to +30	30 min.	24 h
≥ +30 to +40	15 min.	12 h

Injection system FIS EP with threaded rod FIS A resp. RG M

Permissible loads of a single anchor^{1) 2)} in normal concrete of strength class C20/25.
For the design the complete current assessment ETA-24/0960 of 13.12.2024 has to be considered.

Type	Material / surface ³⁾	Effective anchorage depth h _{ef} [mm]	Minimum member thickness h _{min} [mm]	Maximum installation torque T _{inst,max} [Nm]	Non-cracked concrete			
					Permissible tension (N _{perm} ⁴⁾) and shear loads (V _{perm} ⁴⁾ ; minimum spacing (s _{min} ⁴⁾) and edge distances (c _{min} ⁴⁾) with reduced loads			
					N _{perm} ⁴⁾ [kN]	V _{perm} ⁴⁾ [kN]	S _{min} ⁴⁾ [mm]	C _{min} ⁴⁾ [mm]
FIS A M10	5.8	60	90	20	6.4	9.9	45	45
	5.8	200	230	20	13.8	9.9	45	45
	R-70	60	90	20	6.4	9.3	45	45
	R-70	200	230	20	15.5	9.3	45	45
FIS A M12	5.8	70	100	40	9.0	14.4	55	55
	5.8	240	270	40	20.0	14.4	55	55
	R-70	70	100	40	9.0	13.5	55	55
	R-70	240	270	40	22.5	13.5	55	55
FIS A M16	5.8	80	120	60	12.3	26.9	65	65
	5.8	320	360	60	37.4	26.9	65	65
	R-70	80	120	60	12.3	25.1	65	65
	R-70	320	360	60	42.0	25.1	65	65
FIS A M20	5.8	90	140	120	15.7	37.7	85	85
	5.8	400	450	120	58.3	42.0	85	85
	R-70	90	140	120	15.7	37.7	85	85
	R-70	400	450	120	65.5	39.2	85	85

¹⁾ Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

²⁾ The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 43 °C (resp. short term up to 60 °C). Drilling method and borehole cleaning according to ETA specifications. The factor Ψ_{sus} for sustained load was taken into account with 1.0.

³⁾ Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, galvanised steel (gvz); for damp interiors and for outdoor use, stainless steel (R).

⁴⁾ In the case of combinations of tension and shear loads, bending moments, as well as reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the full ETA and EN 1992-4:2018.

Assortment and accessories

Assortment



FIS EP



FIS MR PLUS

Article description	Art.-No	Languages on the cartridge	Scale unit	Contents	Sales unit
FIS EP 390 S	553526	AR,EN,ES,PT	180	1x cartridge FIS EP 390 ml, 1x FIS MR Plus	20
FIS MR Plus	545853	–	–	1x static mixer FIS MR Plus	10

Dispensers



FIS DM S Pro



FIS AM



FIS DB S PRO



FSS-B 18V

Article description	Art.-No	Description	Sales unit [pcs]
FIS DM S Pro	563337	Manual dispenser for FIS EP 390 S	1
FIS AM	058000	Manual dispenser for FIS EP 390 S	1
FIS DB S PRO (EU)	543629	Battery operated dispenser for FIS EP 390 S with 1x charger 12-36V UK, 1x battery pack 18V 2.0Ah, 1x screw off handle, 1x belt hook, 1x hard case	1
FIS DB S Pro (UK)	564960	Battery operated dispenser for FIS EP 390 S with 1x charger 12-36V UK, 1x battery pack 18V 2.0Ah, 1x screw off handle, 1x belt hook, 1x hard case	1
FSS-B 18V 2,0Ah	563787	Battery Pack FIS DB S Pro 18V 2,0Ah	1
FSS-B 18V 4,0Ah	552930	Battery Pack FIS DB S Pro 18V 4,0Ah	1

Dispensers



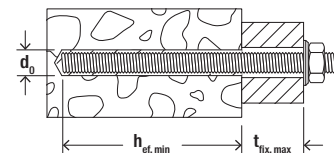
Compressed air cleaning tool ABP



Centring wedge

Article description	Art.-No	Description	Sales unit [pcs]
Compressed air cleaning tool ABP	093286	–	1
Centring wedge	093076	–	10

Accessories



Anchor rod FIS A for installation
with FIS EP



FIS A zinc-plated steel

FIS A stainless steel

	Zinc-plated steel grade 5.5	Zinc-plated steel grade 8.8	Stainless steel A4 – 70	Drill hole diameter	Min. anchorage depth	Max. usable length	Min. fill quantity FIS EP	Max. anchorage depth	Max. usable length	Max. fill quantity FIS EP	Sales unit
				d_0	$h_{ef, min.}$	$t_{fix}, h_{ef, min}$	$h_{ef, min.}$	$h_{ef, max.}$	$t_{fix}, h_{ef, min}$	$h_{ef, max.}$	
Article description	Art.-No	Art.-No	Art.-No	[mm]	[mm]	[mm]	[scale units]	[mm]	[mm]	[scale units]	[pcs]
FIS A M 8 x 90	090274	519390	090440	10	60	19	2	78	1	3	10
FIS A M 8 x 110	090275	519391	090441	10	60	39	2	98	1	3	10
FIS A M 8 x 130	090276	519392	090442	10	60	59	2	118	1	4	10
FIS A M 8 x 175	090277	519393	090443	10	60	104	2	160	4	5	10
FIS A M 8 x 1000	509214	509222	509230	10	60	–	2	160	–	5	10
FIS A M 10 x 110	090278	–	090444	12	60	37	3	96	1	4	10
FIS A M 10 x 130	090279	–	090447	12	60	57	3	116	1	5	10
FIS A M 10 x 150	090281	517935	090448	12	60	77	3	136	1	5	10
FIS A M 10 x 170	044969	519395	044973	12	60	97	3	156	1	6	10
FIS A M 10 x 190	–	517936	519420	12	60	117	3	176	1	7	10
FIS A M 10 x 200	090282	519396	090449	12	60	127	3	186	1	7	10
FIS A M 10 x 1000*	509215	509223	509231	12	60	–	3	200	–	7	10
FIS A M 12 x 120	044971	519397	044974	14	70	34	3	103	1	5	10
FIS A M 12 x 140	090283	519398	090450	14	70	54	3	123	1	6	10
FIS A M 12 x 160	090284	517937	090451	14	70	74	3	143	1	7	10
FIS A M 12 x 180	090285	519399	090452	14	70	94	3	163	1	7	10
FIS A M 12 x 200	–	517938	519421	14	70	114	3	183	1	8	10
FIS A M 12 x 210	090286	–	090453	14	70	124	3	193	1	9	10
FIS A M 12 x 260	090287	–	090454	14	70	174	3	240	4	10	10
FIS A M 12 x 1000*	509216	509224	509232	14	70	–	3	240	–	10	10
FIS A M 16 x 130	044972	519400	044975	18	80	30	5	109	1	7	10
FIS A M 16 x 175	090288	519401	090455	18	80	75	5	154	1	10	10
FIS A M 16 x 200	090289	517939	090456	18	80	100	5	179	1	11	10
FIS A M 16 x 250	090290	517940	090457	18	80	150	5	229	1	14	10
FIS A M 16 x 300	090291	519402	090458	18	80	200	5	279	1	17	10
FIS A M 16 x 1000*	509217	509225	509233	18	80	–	5	320	–	19	10
FIS A M 20 x 245	090292	519404	090459	24	90	131	11	220	1	28	10
FIS A M 20 x 290	090293	519406	090460	24	90	176	11	265	1	32	10
FIS A M 20 x 1000*	–	519410	519427	24	90	–	11	400	–	48	10
FIS A M 24 x 290	090294	–	090468	28	96	165	15	260	1	39	5
FIS A M 24 x 380	090295	–	090462	28	96	255	15	350	1	52	5
FIS A M 30 x 340	090296	–	090463	35	120	185	28	304	1	67	5
FIS A M 30 x 430	090297	–	090464	35	120	275	28	394	1	88	5

*excluding nuts and washers – FIS A highly corrosion-resistant steel 1.4529 on request. Additional sizes on request.

Nut and washer for Anchor rod FIS A



Nut and washer

	Zinc-plated steel grade 8	Stainless steel A4-A70	Width across nut	Washer (outside-Ø x thickness)	Fits	Sales unit
Article description	Art.-No	Art.-No	SW	[mm]		[pcs]
Nut and washer M8	510509	510113	13	16 x 1.6	FIS A M8 x 1000	50
Nut and washer M10	510510	510514	17	20 x 2.0	FIS A M10 x 1000	50
Nut and washer M12	510511	510515	19	24 x 2.5	FIS A M12 x 1000	25
Nut and washer M16	510512	510516	24	30 x 3.0	FIS A M16 x 1000	20
Nut and washer M20	519737	519738	30	37 x 3.0	FIS A M20 x 1000	10

Cleaning brush and SDS-Adapter



Cleaning brush BS



SDS-Adapter M8

		Description	Fits	Drill hole diameter d ₀	Sales unit
Article description	Art.-No			[Ø mm]	[pcs]
BS Ø 10	078178	—	FIS A M 8	10 mm	1
BS Ø 12	078179	—	FIS A M 10	12 mm	1
BS Ø 14	078180	—	FIS A M 12	14 mm	1
BS Ø 18	078181	—	FIS A M 16	16 /18 mm	1
BS Ø 24	078182	—	FIS A M 20	24 mm	1
BS Ø 28	078183	—	FIS A M 24	26/28 mm	1
BS Ø 35	078184	—	FIS A M 30	30/32/35 mm	1
SDS chuck	511961	with internal thread M8	—	—	1
Brush extension	508791	extension for deep drill holes	—	—	1

Dealer:

www.fischer-international.com



fischer stands for

Fixing Systems
fischertechnik
Consulting
Electronic Solutions

fischerwerke GmbH & Co. KG
Klaus-Fischer-Straße 1 · 72178 Waldachtal
Germany
P +49 7443 12-0
www.fischer-international.com · info@fischer.de
