

# Injection mortar FIS V / FIS VS / FIS VW

The high-performance hybrid mortar in the shuttle cartridge.

## OVERVIEW



Injection mortar  
**FIS V 360 S**,  
styrene free



Injection mortar  
**FIS V 950 S**,  
styrene free



Injection mortar  
**FIS VW 360 S**  
**(Winter)**  
styrene free



Injection mortar  
**FIS VS 360 S**  
**(Summer)**  
styrene free



Injection mortar  
**FIS VS 300 T**  
**(Summer)**  
styrene free, for all  
standard press guns  
for sealants



Static mixer **FIS S**

### Approvals: FIS V / FIS VS / FIS VW

- European Technical Approval Option 7 in combination with threaded rods FIS A or RG M for non-cracked concrete
- Building supervisory approval (DIBt) in combination with injection anchor sleeve FIS H K and injection anchor parts FIS A or FIS E for solid, perforated and hollow bricks (solid bricks also without anchor sleeves)
- Building supervisory approval (DIBt) for aerated concrete in combination with cone drill PBB centring sleeve PBZ and threaded rod FIS A.
- **The FIS V also has** building supervisory approval (DIBt) for rebar connections.
- Building supervisory approval (DIBt) for VBS 8 facing refurbishment anchor
- Building supervisory approval (DIBt) for weather bowl refurbishment system



### For fixing of:

- Steel constructions
- Railings
- Hand-rails
- Consoles
- Ladders
- Machines
- Cable trays
- S taircases
- Gates
- Facades
- Window elements
- High racks
- Canopies
- Stand-off installations

## DESCRIPTION

- Styrene-free, quick-curing high-performance hybrid mortar (contains vinyl ester resin and cement).
- Resin and cement as well as water and hardener are stored in two separate chambers and are not mixed and activated until pushed through the static mixer.
- Partially-used cartridges can easily be reused by changing the static mixer.
- FIS VW 360 S with accelerated curing especially during winter.
- FIS VS 300 T for all standard application guns for sealants.

### Advantages/Benefits

- High-performance hybrid mortar for highest loads in almost all building materials.
- Universal fixing system for a broad range of applications on building sites.
- Expansion-free anchoring allows low spacings and edge distances.
- Extensive range of accessories for a wide variety of applications.
- Ergonomic application guns for quick and easy installation.
- A variety of approvals cover many applications in nearly all building material and guarantee maximum safety.

### Accessories / Recommended loads

- For fixing in concrete, see page 82 et seq.
- For fixing in masonry, see page 88 et seq.
- For fixing in aerated concrete, see page 98
- For Rebar anchor FRA, see page 100
- For reinforcement bars, see page 103
- Appropriate application guns, see page 114/115



- First injection system world-wide with approvals for concrete, reinforcement bars, solid bricks, perforated bricks and aircrete.

## TECHNICAL DATA



Injection mortar **FIS V 360 S**,  
styrene free



Injection mortar **FIS V 950 S**,  
styrene free

Type	Art.-No.	approval	contents	languages on the label	Qty. per box
		● DIBt ■ ETA			pcs.
FIS V 360 S	<b>094404</b>	● ■	1 cartridge 360 ml + 2 static mixer	D, F, NL, TR, H, RUS	6
FIS V 360 S	<b>094405</b>	● ■	1 cartridge 360 ml + 2 static mixer	GB, I, P, E, PRC, JP	6
FIS V 360 S	<b>068435</b>	● ■	1 cartridge 360 ml + 2 static mixer	DK, S, N, FIN, PL, CZ	6
FIS V 360 S Eastern Europe	<b>041846</b>	● ■	1 cartridge 360 ml + 2 static mixer	D, H, RO, SLO, HR, BG	6
FIS V 360 S Eastern Europe	<b>043994</b>	● ■	1 cartridge 360 ml + 2 static mixer	CZ, SK, PL, H, RO, RUS	6
FIS V 360 S	<b>502283</b>	■	1 cartridge 360 ml + 2 static mixer	LT, LV, EE, UA, RU, KZ	6
FIS V 950 S	<b>017101</b>	● ■	1 cartridge 950 ml + 2 static mixer	D, GB, F, NL, I, E, P, JP, PRC	6
FIS S	<b>061223</b>		10 static mixer FIS V 360 S	-	10



Injection mortar **FIS VW 360 S**  
(W = winter)



Injection mortar **FIS VS 300 T**  
(S = summer)



Injection mortar **FIS VS 360 S**  
(S = summer)

Type	Art.-No.	approval	contents	languages on the label	Qty. per box
		● DIBt ■ ETA			pcs.
FIS VW 360 S	<b>090753</b>	● ■	1 cartridge 360 ml + 2 static mixer	D, GB, F, I, NL, E	6
FIS VW 360 S	<b>043997</b>	● ■	1 cartridge 360 ml + 2 static mixer	CZ, SK, PL, H, RO, RUS	6
FIS VW 360 S	<b>045674</b>	● ■	1 cartridge 360 ml + 2 static mixer	DK, FIN, NOR, S	6
FIS VW 360 S	<b>502284</b>	■	1 cartridge 360 ml + 2 static mixer	LT, LV, RR, UA, RU, KZ	6
FIS VS 360 S	1) <b>078664</b>	● ■	1 cartridge 380 ml + 2 static mixer	GB, PRC, E, P, JP, RI	6
FIS VS 300 T	1) <b>093180</b>	● ■	1 cartridge 300 ml + 2 static mixer	D, GB, F, I, NL, E	12
FIS VS 300 T	1) <b>093226</b>	● ■	1 cartridge 300 ml + 2 static mixer	PL, CZ, DK, N, S, FIN	12
FIS VS 300 T	1) <b>044102</b>	● ■	1 cartridge 300 ml + 2 static mixer	CZ, SK, PL, H, RO, RUS	12
FIS VS 300 T	1) <b>051058</b>	● ■	1 cartridge 300 ml + 2 static mixer	CZ, SK, PL, H, RO, RUS	12
FIS VS 300 T	<b>502285</b>	■	1 cartridge 300 ml + 2 static mixer	LT, LV, EE, UA, RU, KZ	12

1) styrene free



Case set **FIS B**



FIS V 360 S HWK big



FIS V 360 S HWK small

Type	Art.-No.	contents	languages on the label	Qty. per box
				pcs.
FIS B Case set	<b>024870</b>	3 x FIS V 360 S cartridges à 360 cm <sup>3</sup> /560 g, 1 x application gun FIS AK, 1 x blow-out pump, 1 x set of brushes, 1 x static mixer	D, F, NL, TR, H, RUS	3
FIS V 360 S HWK big	<b>091936</b>	20 x FIS V 360 S cartridge à 360 cm <sup>3</sup> /560 g, 40 x static mixer	D, F, NL, H, RUS, TR	20
FIS V 360 S HWK big	<b>096554</b>	20 x FIS V 360 S cartridge à 360 cm <sup>3</sup> /560 g, 40 x static mixer	GB, I, P, E, PRC, JP	20
FIS VS 360 S HWK set	<b>049418</b>	12 x FIS VS 360 S cartridge à 360 cm <sup>3</sup> /560 g, FIS AK gun, 24 x static mixer	GB, PRC, E, P, JP, RI	12
FIS V 360 S HWK small	<b>092430</b>	10 x FIS V 360 S cartridge à 360 cm <sup>3</sup> /560 g, 20 x static mixer	D, F, NL, H, RUS, TR	10

# Injection mortar FIS V / FIS VS / FIS VW

## CURING TIME

### Gelling and curing time of Injection mortar FIS V

Cartridge temperature (mortar)	Gelling time	Temperature at anchoring base	Curing time
		- 5°C – ± 0°C	24 hrs.
		± 0°C – + 5°C	3 hrs.
+ 5°C – + 10°C	13 min.	+ 5°C – + 10°C	90 min.
+ 10°C – + 20°C	5 min.	+ 10°C – + 20°C	60 min.
+ 20°C – + 30°C	4 min.	+ 20°C – + 30°C	45 min.
+ 30°C – + 40°C	2 min.	+ 30°C – + 40°C	35 min.

### Gelling and curing time of Injection mortar FIS VS (summer)

Cartridge temperature (mortar)	Gelling time	Temperature at anchoring base	Curing time
		± 0°C – + 5°C	6 hrs.
+ 5°C – + 10°C	20 min.	+ 5°C – + 10°C	3 hrs.
+ 10°C – + 20°C	10 min.	+ 10°C – + 20°C	2 hrs.
+ 20°C – + 30°C	6 min.	+ 20°C – + 30°C	60 min.
+ 30°C – + 40°C	4 min.	+ 30°C – + 40°C	30 min.

### Gelling and curing time of Injection mortar FIS VW (winter)

Cartridge temperature (mortar)	Gelling time	Temperature at anchoring base	Curing time
		- 5°C – ± 0°C	3 hrs.
0°C – + 5°C	5 min.	± 0°C – + 5°C	90 min.
+ 5°C – + 10°C	3 min.	+ 5°C – + 10°C	45 min.
+ 10°C – + 20°C	1 min.	+ 10°C – + 20°C	30 min.
		- 5°C – - 10°C	8 hrs.
		- 10°C – - 15°C	12 hrs.

The above times apply from the moment of contact between resin and hardener in the static mixer.

For installation, the cartridge temperature must be at least +5°C. For longer installation times, i.e. when interruptions occur in work, the mixer should be replaced.