Injection resin ITH 585 EPOXe

SORMAT CODE 9640072946

ETA Option 1 -approved pure epoxy power

- Sormat 585 EPOXe is an ETA Option 1-approved, two component, high-performance pure epoxy resin for bonding studs, bolts and rebars. Recommended for professional use only.
- EPOXe is ideally suited for demanding and safety critical applications with high load requirements. EPOXe works great in oversized holes with large-diameter studs etc. Extended gel time is convenient when the resin is used in deep boreholes and high ambient temperatures.
- Ideal for post-installed rebar used in structural connections. Suitable for use underwater, in overhead installations and in diamond drilled boreholes. EPOXe offers exceptionally high chemical resistance.
- Styrene-free, low odor, seismic approval C1 & C2, fire resistance test report up to F240 (rebar), low VOC content A+, NSF certified for contact with drinking water.
- Store partially used cartridge with mixer on. Reusable until expiry date marked on the product label, if stored properly. Change mixer before reusing. Designated mixing nozzle and 200 mm extension are included with each cartridge. For ordering, spare mixing nozzle kit use product code 9640072914.
- Suitable conditions related to stud and rebar material qualities: ZP for dry indoor and temporary outdoor use; HGD/MG and A2 for dry and humid indoor use, outdoor in rural areas only; A4 for indoor, outdoor and industrial use; HCR for extremely corrosive conditions.

PRODUCT OVERVIEW

Other codes	/
Material	Resin
Packages	piece: 1 / outer carton: 12 / pallet: 672
Weight	954.0 kg / 1000
GTIN-13	6416031729461
Availability	end of life

APPLICATIONS

- Structural connections
- Post-installed rebars
- Harbour constructions
- Waterfilled boreholes
- Underwater applications
- Overhead installations
- Diamond drilled holes

BASE MATERIALS

APPROVED FOR

- Cracked concrete
- Non-cracked concrete

ALSO SUITABLE FOR

- Aerated concrete block
- Hollow light expanded clay aggregate block

- Close edge applications
- Small anchor spacings

- Hollow-core slab
- Natural stone
- Perforated clay brick
- Solid clay brick
- Solid light expanded clay aggregate block

APPROVALS / CERTIFICATES

ETA-14/0322 + DoPs

2873-CPR-M 537-1/12.2020

Drinking water contact

Seismic resistance (ETA-14/0352)

ETA-14/0352 + DoPs

2873-CPR-M 537-2/12.2020

Fire resistance ITH-EPOXe (DIN EN 1363-1:2012)

Gel and curing times

Base material temperature	Gel time	Curing time
+40 °C	12 min	4 h
+30 °C	20 min	6 h
+20 °C	30 min	10 h
+10 °C	1 h 30 min	30 h
+5 °C	2 h	50 h

Installation details for solid base material

Stud size	SW	Hole in fixture (d_f)	Drill hole diameter (d_0)	Min. hole depth (h_1)	Embedment depth (h_{nom})	Theoretical resin consumption (vol)
M8	13 mm	9 mm	10 mm	80 mm	80 mm	5 ml
M10	17 mm	12 mm	12 mm	90 mm	90 mm	7 ml
M12	19 mm	14 mm	14 mm	110 mm	110 mm	12 ml
M16	24 mm	18 mm	18 mm	125 mm	125 mm	22 ml
M20	30 mm	22 mm	24 mm	170 mm	170 mm	52 ml
M24	36 mm	26 mm	28 mm	210 mm	210 mm	87 ml
M27	41 mm	30 mm	32 mm	250 mm	250 mm	135 ml
M30	46 mm	33 mm	35 mm	280 mm	280 mm	180 ml
M33	50 mm	36 mm	37 mm	320 mm	320 mm	230 ml
M36	55 mm	39 mm	42 mm	350 mm	350 mm	324 ml
M39	60 mm	42 mm	46 mm	380 mm	380 mm	422 ml

Performance data for solid base material

Stud size	Property class	Base material	Embedment depth (h_{nom})	Min. base material thickness (h_{min})	Installation torque (T_{inst})	Load type	Load direction	Load value
M8	Steel 5.8	Non-cracked concrete C20/25	80 mm	110 mm	10 Nm	N_{Rec}		8.6 kN
M8	Steel 5.8	Non-cracked concrete C20/25	80 mm	110 mm	10 Nm	V_{Rec}		5.1 kN
M8	Steel 5.8	Cracked concrete C20/25	80 mm	110 mm	10 Nm	N_{Rec}		6.0 kN
M8	Steel 5.8	Cracked concrete C20/25	80 mm	110 mm	10 Nm	V_{Rec}		4.8 kN
M10	Steel 5.8	Non-cracked concrete C20/25	90 mm	120 mm	20 Nm	N_{Rec}		13.8 kN
M10	Steel 5.8	Non-cracked concrete C20/25	90 mm	120 mm	20 Nm	V_{Rec}		8.6 kN
M10	Steel 5.8	Cracked concrete C20/25	90 mm	120 mm	20 Nm	N_{Rec}		8.4 kN
M10	Steel 5.8	Cracked concrete C20/25	90 mm	120 mm	20 Nm	V_{Rec}		7.1 kN
M12	Steel 5.8	Non-cracked concrete C20/25	110 mm	140 mm	40 Nm	N_{Rec}		20.0 kN
M12	Steel 5.8	Non-cracked concrete C20/25	110 mm	140 mm	40 Nm	V_{Rec}		12.0 kN
M12	Steel 5.8	Cracked concrete C20/25	110 mm	140 mm	40 Nm	N_{Rec}		12.3 kN
M12	Steel 5.8	Cracked concrete C20/25	110 mm	140 mm	40 Nm	V_{Rec}		9.6 kN
M16	Steel 5.8	Non-cracked concrete C20/25	125 mm	161 mm	80 Nm	N_{Rec}		28.0 kN
M16	Steel 5.8	Non-cracked concrete C20/25	125 mm	161 mm	80 Nm	V_{Rk}		22.3 kN
M16	Steel 5.8	Cracked concrete C20/25	125 mm	161 mm	80 Nm	N_{Rec}		16.2 kN
M16	Steel 5.8	Cracked concrete C20/25	125 mm	161 mm	80 Nm	V_{Rec}		13.7 kN
M20	Steel 5.8	Non-cracked concrete C20/25	170 mm	218 mm	120 Nm	N_{Rec}		38.1 kN
M20	Steel 5.8	Non-cracked concrete C20/25	170 mm	218 mm	120 Nm	V_{Rec}		34.9 kN
M20	Steel 5.8	Cracked concrete C20/25	170 mm	218 mm	120 Nm	N_{Rec}		21.8 kN

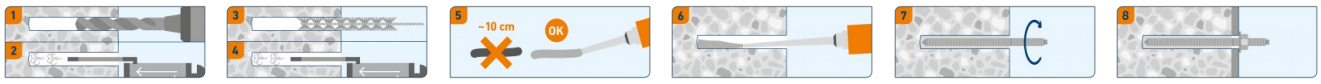
Stud size	Property class	Base material	Embedment depth (h)	Min. base material thickness (h)	Installation torque (T)	Load type	Load direction	Load value
M20	Steel 5.8	Cracked concrete C20/25	170 mm	218 mm	120 Nm	V_{Rec}		19.2 kN
M24	Steel 5.8	Non-cracked concrete C20/25	210 mm	266 mm	160 Nm	N_{Rec}		52.3 kN
M24	Steel 5.8	Non-cracked concrete C20/25	210 mm	266 mm	160 Nm	V_{Rec}		50.3 kN
M24	Steel 5.8	Cracked concrete C20/25	210 mm	266 mm	160 Nm	N_{Rec}		29.6 kN
M24	Steel 5.8	Cracked concrete C20/25	210 mm	266 mm	160 Nm	V_{Rec}		24.2 kN
M27	Steel 5.8	Non-cracked concrete C20/25	250 mm	314 mm	180 Nm	N_{Rec}		67.9 kN
M27	Steel 5.8	Non-cracked concrete C20/25	250 mm	314 mm	180 Nm	V_{Rk}		65.7 kN
M27	Steel 5.8	Cracked concrete C20/25	250 mm	314 mm	180 Nm	N_{Rec}		39.7 kN
M27	Steel 5.8	Cracked concrete C20/25	250 mm	314 mm	180 Nm	V_{Rk}		29.1 kN
M30	Steel 5.8	Non-cracked concrete C20/25	280 mm	350 mm	200 Nm	N_{Rec}		80.5 kN
M30	Steel 5.8	Non-cracked concrete C20/25	280 mm	350 mm	200 Nm	V_{Rk}		80.0 kN
M30	Steel 5.8	Cracked concrete C20/25	280 mm	350 mm	200 Nm	N_{Rec}		49.4 kN
M30	Steel 5.8	Cracked concrete C20/25	280 mm	350 mm	200 Nm	V_{Rk}		34.6 kN
M33	Steel 5.8	Non-cracked concrete C20/25	320 mm	394 mm	350 Nm	N_{Rec}		98.3 kN
M33	Steel 5.8	Non-cracked concrete C20/25	320 mm	394 mm	350 Nm	V_{Rk}		88.6 kN
M33	Steel 5.8	Cracked concrete C20/25	320 mm	394 mm	350 Nm	N_{Rec}		62.1 kN
M33	Steel 5.8	Cracked concrete C20/25	320 mm	394 mm	350 Nm	V_{Rk}		40.6 kN
M36	Steel 5.8	Non-cracked concrete C20/25	350 mm	434 mm	500 Nm	N_{Rec}		113.0 kN
M36	Steel 5.8	Non-cracked concrete C20/25	350 mm	434 mm	500 Nm	V_{Rk}		102.0 kN
M36	Steel 5.8	Cracked concrete C20/25	350 mm	434 mm	500 Nm	N_{Rec}		74.1 kN

Stud size	Property class	Base material	Embedment depth (h)	Min. base material thickness (h)	Installation torque (T)	Load type	Load direction	Load value
M36	Steel 5.8	Cracked concrete C20/25	350 mm	434 mm	500 Nm	V_{Rk}		47.0 kN
M39	Steel 5.8	Non-cracked concrete C20/25	380 mm	472 mm	700 Nm	N_{Rec}		127.0 kN
M39	Steel 5.8	Non-cracked concrete C20/25	380 mm	472 mm	700 Nm	V_{Rk}		117.0 kN
M39	Steel 5.8	Cracked concrete C20/25	380 mm	472 mm	700 Nm	N_{Rec}		87.1 kN
M39	Steel 5.8	Cracked concrete C20/25	380 mm	472 mm	700 Nm	V_{Rk}		53.8 kN

Installation details by rebar diameter

Rebar class	Rebar diameter	Drill hole diameter (d_0)	Base material	Embedment depth (h_{nom})	Theoretical resin consumption (vol)	Load definition	Load type	Load direction	Load value
A500HV	8 mm	12 mm	Non-cracked concrete C20/25	80 mm	7 ml	F_{Rec}	N_{Rec}		11.2 kN
A500HV	8 mm	12 mm	Non-cracked concrete C20/25	80 mm	7 ml	F_{Rec}	V_{Rec}		6.7 kN
A500HV	8 mm	12 mm	Cracked concrete C20/25	80 mm	7 ml	F_{Rec}	N_{Rec}		6.0 kN
A500HV	8 mm	12 mm	Cracked concrete C20/25	80 mm	7 ml	F_{Rec}	V_{Rk}		4.8 kN
A500HV	10 mm	14 mm	Non-cracked concrete C20/25	90 mm	10 ml	F_{Rec}	N_{Rec}		15.7 kN
A500HV	10 mm	14 mm	Non-cracked concrete C20/25	90 mm	10 ml	F_{Rec}	V_{Rec}		10.5 kN
A500HV	10 mm	14 mm	Cracked concrete C20/25	90 mm	10 ml	F_{Rec}	N_{Rec}		8.4 kN
A500HV	10 mm	14 mm	Cracked concrete C20/25	90 mm	10 ml	F_{Rec}	V_{Rec}		7.1 kN
A500HV	12 mm	16 mm	Non-cracked concrete C20/25	110 mm	15 ml	F_{Rec}	N_{Rec}		21.4 kN
A500HV	12 mm	16 mm	Non-cracked concrete C20/25	110 mm	15 ml	F_{Rec}	V_{Rk}		14.8 kN
A500HV	12 mm	16 mm	Cracked concrete C20/25	110 mm	15 ml	F_{Rec}	N_{Rec}		12.3 kN
A500HV	12 mm	16 mm	Cracked concrete C20/25	110 mm	15 ml	F_{Rec}	V_{Rec}		9.4 kN
A500HV	14 mm	18 mm	Non-cracked concrete C20/25	115 mm	22 ml	F_{Rec}	N_{Rec}		24.7 kN
A500HV	14 mm	18 mm	Non-cracked concrete C20/25	115 mm	22 ml	F_{Rec}	V_{Rk}		20.0 kN
A500HV	14 mm	18 mm	Cracked concrete C20/25	115 mm	22 ml	F_{Rec}	N_{Rec}		14.0 kN
A500HV	14 mm	18 mm	Cracked concrete C20/25	115 mm	22 ml	F_{Rec}	V_{Rk}		11.6 kN
A500HV	16 mm	20 mm	Non-cracked concrete C20/25	125 mm	27 ml	F_{Rec}	N_{Rec}		28.0 kN
A500HV	16 mm	20 mm	Non-cracked concrete C20/25	125 mm	27 ml	F_{Rec}	V_{Rk}		26.2 kN
A500HV	16 mm	20 mm	Cracked concrete C20/25	125 mm	27 ml	F_{Rec}	N_{Rec}		13.9 kN

Rebar class	Rebar diameter	Drill hole diameter (d)	Base material	Embedment depth (h)	Theoretical resin consumption (vol)	Load definition	Load type	Load direction	Load value
A500HV	16 mm	20 mm	Cracked concrete C20/25	125 mm	27 ml	F_{Rec}	V_{Rk}		13.7 kN
A500HV	20 mm	24 mm	Non-cracked concrete C20/25	170 mm	52 ml	F_{Rec}	N_{Rec}		38.1 kN
A500HV	20 mm	24 mm	Non-cracked concrete C20/25	170 mm	52 ml	F_{Rec}	V_{Rk}		41.0 kN
A500HV	20 mm	24 mm	Cracked concrete C20/25	170 mm	52 ml	F_{Rec}	N_{Rec}		21.8 kN
A500HV	20 mm	24 mm	Cracked concrete C20/25	170 mm	52 ml	F_{Rec}	V_{Rk}		19.1 kN
A500HV	25 mm	32 mm	Non-cracked concrete C20/25	210 mm	113 ml	F_{Rec}	N_{Rec}		52.3 kN
A500HV	25 mm	32 mm	Non-cracked concrete C20/25	210 mm	113 ml	F_{Rec}	V_{Rk}		56.6 kN
A500HV	25 mm	32 mm	Cracked concrete C20/25	210 mm	113 ml	F_{Rec}	N_{Rec}		30.9 kN
A500HV	25 mm	32 mm	Cracked concrete C20/25	210 mm	113 ml	F_{Rec}	V_{Rk}		25.7 kN
A500HV	28 mm	35 mm	Non-cracked concrete C20/25	250 mm	161 ml	F_{Rec}	N_{Rec}		67.9 kN
A500HV	28 mm	35 mm	Non-cracked concrete C20/25	250 mm	161 ml	F_{Rec}	V_{Rk}		67.0 kN
A500HV	28 mm	35 mm	Cracked concrete C20/25	250 mm	161 ml	F_{Rec}	N_{Rec}		41.1 kN
A500HV	28 mm	35 mm	Cracked concrete C20/25	250 mm	161 ml	F_{Rec}	V_{Rk}		30.5 kN
A500HV	32 mm	40 mm	Non-cracked concrete C20/25	280 mm	235 ml	F_{Rec}	N_{Rec}		80.5 kN
A500HV	32 mm	40 mm	Non-cracked concrete C20/25	280 mm	235 ml	F_{Rec}	V_{Rk}		84.0 kN
A500HV	32 mm	40 mm	Cracked concrete C20/25	280 mm	235 ml	F_{Rec}	N_{Rec}		52.7 kN
A500HV	32 mm	40 mm	Cracked concrete C20/25	280 mm	235 ml	F_{Rec}	V_{Rk}		38.3 kN
A500HV	36 mm	46 mm	Non-cracked concrete C20/25	340 mm	377 ml	F_{Rec}	N_{Rec}		108.0 kN
A500HV	36 mm	46 mm	Non-cracked concrete C20/25	340 mm	377 ml	F_{Rec}	V_{Rk}		102.0 kN
A500HV	36 mm	46 mm	Cracked concrete C20/25	340 mm	377 ml	F_{Rec}	N_{Rec}		71.9 kN

Rebar class	Rebar diameter	Drill hole diameter (d)	Base material	Embedment depth (h)	Theoretical resin consumption (vol)	Load definition	Load type	Load direction	Load value
A500HV	36 mm	46 mm	Cracked concrete C20/25	340 mm	377 ml	F_{Rec}	V_{Rk}		46.6 kN
A500HV	40 mm	50 mm	Non-cracked concrete C20/25	360 mm	472 ml	F_{Rec}	N_{Rec}		117.0 kN
A500HV	40 mm	50 mm	Non-cracked concrete C20/25	360 mm	472 ml	F_{Rec}	V_{Rk}		120.0 kN
A500HV	40 mm	50 mm	Cracked concrete C20/25	360 mm	472 ml	F_{Rec}	N_{Rec}		83.6 kN
A500HV	40 mm	50 mm	Cracked concrete C20/25	360 mm	472 ml	F_{Rec}	V_{Rk}		55.2 kN

Installation