

FISFIX R360

STYRENE-FREE VINYL ESTER HYBRID CHEMICAL ANCHORING ADHESIVE

82 MPa

COMPRESSIVE STRENGTH

5 : 1

MIX RATIO (BY VOLUME)

10 min

WORKING TIME (20 °C)

360 mL

CARTRIDGE VOLUME

DESCRIPTION

FISFIX 360 is a two-component, styrene-free vinyl ester hybrid chemical anchoring adhesive supplied in a 360 mL side-by-side cartridge with integrated static mixer. Designed for fast-curing post-installed rebar connections, threaded rod anchoring, and structural dowelling in concrete, masonry, and natural stone substrates. The thixotropic formulation (index ≥ 3) allows installation in overhead and horizontal-up orientations without drip. Suitable for use in cracked and non-cracked concrete, including water-filled drill holes.

INTENDED USES

- Post-installed rebar connections (rebar planting) in concrete and masonry per ACI 318 / EN 1992
- Anchoring of threaded rods, bolts, and deformed bar in solid and hollow substrates
- Structural dowelling for concrete-to-concrete connections
- Seismic retrofit anchorage per ACI 355.4 (Seismic Categories C1 and C2)
- Anchoring in cracked and non-cracked concrete, including water-filled or damp drill holes
- Compatible with both rebar (Grade 40/60) and threaded rod (Grade 5.8/8.8)

CHARACTERISTICS

- Rapid curing — full load capacity in 60 min at 20 °C (vs. 24 hrs for epoxy)
- Styrene-free vinyl ester hybrid — low odour, suitable for confined and indoor applications
- Works in cracked concrete, water-filled and damp drill holes
- Extended application temperature range: -5 °C to +40 °C
- Thixotropic consistency (index ≥ 3) — no drip in overhead installations
- 5 : 1 mix ratio by volume — dispensed and mixed automatically via static mixing nozzle
- Suitable for rebar $\varnothing 8$ – $\varnothing 32$ and threaded rod M8–M39
- 18-month shelf life in unopened cartridge

TECHNICAL PROPERTIES

MIXED / CURED RESIN — TESTED AT 23 °C / 50 % RH UNLESS STATED

PROPERTY	TEST METHOD	VALUE
PROCESSING		
Cartridge Volume	—	360 mL
Mix Ratio (A : B)	—	5 : 1 (by volume)
Working Time (+10 °C)	—	20 min
Working Time (+20 °C)	—	10 min

PROPERTY	TEST METHOD	VALUE
Working Time (+30 °C)	—	6 min
Working Time (+40 °C)	—	4 min
Full Cure (+10 °C)	—	90 min
Full Cure (+20 °C)	—	60 min
Full Cure (+30 °C)	—	45 min
Full Cure (+40 °C)	—	30 min
Colour (mixed)	—	Grey
Application Temperature	—	-5 °C to +40 °C
Service Temperature	—	-40 °C to +80 °C
MECHANICAL (CURED)		
Compressive Strength	ASTM D695	82 MPa
Tensile Strength	ASTM D638	22 MPa
Bending Strength	ASTM D790	42 MPa
Steel-to-Steel Shear	ASTM D1002	14 MPa
Bond to C25/30 Concrete (Ø25)	—	12 MPa
Thixotropic Index	—	≥ 3

LOAD CAPACITY — GRADE 40/60 REBAR (C30 CONCRETE, UNCRACKED)

BAR Ø (MM)	HOLE Ø (MM)	MIN DEPTH (MM)	ADHESIVE (ML)	GRADE 40 (KN)	GRADE 60 (KN)
8	12	≥100	7.5	14.1	20.8
10	14	≥100	10.3	22.0	32.6
12	15	≥120	14.1	31.7	46.9
16	20	≥160	33.5	56.3	83.4
18	22	≥180	45.6	71.2	105.6
20	25	≥200	65.4	87.9	130.3
25	32	≥250	134.0	137.4	203.6
28	35	≥280	179.5	172.3	255.4
32	40	≥320	267.9	225.1	333.6

Grade 40 = 280 MPa yield. Grade 60 = 415 MPa yield. Values at rebar yield — no safety factor applied. In wet concrete or water-filled holes, curing times must be doubled.

INSTALLATION PROCEDURE

Step 1 — Drill Hole

- Drill hole to specified diameter and depth using rotary hammer or diamond core drill.

Step 2 — Clean Hole

- Clean hole thoroughly — blow out dust with compressed air, brush with wire brush, blow again (3 cycles minimum). For water-filled holes, flush and remove standing water.

Step 3 — Prime Cartridge

- Attach static mixing nozzle to cartridge, dispense and discard first 2–3 trigger pulls to verify proper mixing ratio and uniform colour.

Step 4 — Fill Hole

- Fill hole from bottom up to approximately 2/3 depth.

Step 5 — Insert Anchor

- Insert rebar or threaded rod with slow rotating/twisting motion to distribute adhesive evenly.

Step 6 — Curing

- Do not disturb anchor during curing period (refer to curing time table). In wet or water-filled holes, double the curing time.

IMPORTANT

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Vinyl ester adhesive cures significantly faster than epoxy. Monitor ambient temperature and adjust working pace accordingly. At temperatures above +30 °C, working time may be as short as 4 minutes.

LOAD CAPACITY — THREADED ROD (C30 CONCRETE, UNCRACKED)

ROD Ø (MM)	HOLE Ø (MM)	MIN DEPTH (MM)	ADHESIVE (ML)	GRADE 5.8 (KN)	GRADE 8.8 (KN)
8	12	≥100	7.5	20.1	32.2
10	14	≥100	10.3	31.4	50.2
12	14	≥120	12.3	45.2	72.3
16	18	≥160	27.1	80.4	128.6
20	24	≥200	60.3	125.6	201.0
22	25	≥220	72.0	152.0	243.2
24	28	≥240	98.5	180.9	289.4
27	30	≥270	127.2	228.9	366.2
30	35	≥300	192.3	282.6	452.2
36	42	≥360	332.3	406.9	651.1
39	45	≥390	413.3	477.6	764.2

Grade 5.8 = 400 MPa yield. Grade 8.8 = 640 MPa yield. Adhesive usage based on 2/3 drill hole volume.

STORAGE

Store in original sealed cartridge at +5 °C to +25 °C. Protect from direct sunlight and frost. Shelf life 18 months from date of manufacture.

HEALTH & SAFETY

NOTE

Refer to the current Safety Data Sheet (SDS) for handling, storage, and disposal. Wear nitrile gloves, safety goggles, and respiratory protection. Avoid skin contact with uncured resin. This TDS does not replace the SDS.

LEGAL NOTES

The information and recommendations in this document are given in good faith based on current knowledge and experience of the products when properly stored, handled, and applied under normal conditions. Differences in materials, substrates, and site conditions mean that no warranty in respect of merchantability or fitness for a particular purpose can be inferred from this information. The information does not relieve the user of the responsibility of testing products for their intended application. All orders are accepted subject to our current terms of sale and delivery. Refer to the most recent TDS at www.fidstrong.com.