FIDSTRONG
Luckfid Industry Co., Ltd

# PRODUCT DATA SHEET

**Edition: 20240801**

# FSFIX Anchoring Epoxy

HIGH PERFORMANCE, HIGH-LOAD CAPACITY PROFESSIONNAL GRADE ANCHORING ADHESIVE

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## USES

- Anchoring all grades of rebars and threaded rods in concrete, masonry, voided stone, rock, hard natural stone, and solid or hollow bricks and blocks
- Grouting horizontally and vertically where extremely rapid setting and fast turn-around times are needed
- Suitable for cooler temperatures and inclement conditions, including -10°C temperatures and wet substrates
- Grouting in external environments subject to dynamic loads and vibrations
- Use as a 'pick-proof' sealant in secure or holding suites and similar facilities
- Anchoring structural steel to concrete, including safety barriers, balcony stanchions, canopies, signs, handrails, racking, machinery, masonry supports, stadium seats, reinforcing, and starter bars

## CHARACTERISTICS / ADVANTAGES

- Fast curing, effective down to -10°C when pre-conditioned to 5°C
- Cartridge format compatible with standard application guns
- High load capacity
- Suitable for both cracked and uncracked concrete
- Styrene-free, VOC-compliant, and odorless
- Non-sag, suitable for overhead application
- Sets in dry or damp holes
- Approved for threaded rods and reinforcing bars in concrete
- Approved for threaded bars and sockets in masonry
- Reduced edge and spacing values for critical applications
- Reduced drilling diameters (2 mm clearance) for economical installation
- Flexible embedment depths from 8d to 12d
- Resistant to a wide range of chemicals

## Product Information

| **Properties** | **FISFIX 580** | **FISFIX 450** |
|---|---|---|
| Mix Ratio A:B | 3:1 | 2:1 |
| Packaging | 580mL | 450mL |
| Shelf Life | 12 months in original, unopened packaging. | |
| Storage | Store in a cool, dry place, away from direct sunlight, at temperatures between 5°C and 25°C (41°F and 77°F). | |

**Technical Performance Properties**

| Properties | | FISFIX 390 | FISFIX 450 |
|---|---|---|---|
| Operable Time | 10℃ | 80 min. | 70 min. |
| | 20℃ | 60 min. | 50 min. |
| | 30℃ | 40 min. | 30 min. |
| Cured Time | 10℃ | 48 hrs. | 45 hrs. |
| | 20℃ | 24 hrs. | 20 hrs. |
| | 30℃ | | |
| Tensile Strength | | 24 MPa | 26 MPa |
| Bending Strength | | 80 MPa | 91 MPa |
| Compressive Strength | | 92 MPa | 101 MPa |
| Steel-Steel Shear Strength | | 16 MPa | 17 MPa |
| Bonding Strength to C25/30 Concrete (Ø25 rebar) | | 22 MPa | 23 MPa |
| Thixotropy Index | | 4 | 4 |

**Load Table**

| Steel Bar Diameter (mm) | Drill Hole Diameter (mm) | Drill Hole Depth (mm)[1] | Epoxy Usage (mL)[2] | Max Tensile Load (kN)[3] | |
|---|---|---|---|---|---|
| | | | | Grade 40 | Grade 60 |
| 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 |

*Notes:*

1. *The drill hole depth listed in the table represents the minimum embedment depth required for a single rebar to reach yield strength, under conditions without edge or spacing limitations. For embedment depth under other conditions, please consult our technical support.*
2. *The epoxy usage listed in the table is based on 2/3 of the drill hole volume.*
3. *The data listed in the table corresponds to the maximum tensile load at rebar yield strength. The yield strength of Grade 40 rebar is 280 MPa, and for Grade 60 rebar, it is 415 MPa.*

## HEALTH & SAFETY INFORMATION

- Refer to the most recent Safety Data Sheet for safe handling, storage, and disposal of the product.

## LEGAL NOTES

- The Information and recommendations relating to the application and end-use of FIDSTRONG products, are given in good faith based on our current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.fidstrong.com.