FIDSTRONG®
Luckfid Industry Co., Ltd

PRODUCT DATA SHEET

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FSFIX360

HIGH PERFORMANCE, HIGH-LOAD CAPACITY PROFESSIONNAL GRADE ANCHORING ADHESIVE

APPLICATION SCENE

◆ Anchoring of all grades of rebars / threaded rods in concrete, masonry, voided stone and rock, hard natural stone and
solid or hollow bricks and blocks.
◆ Grouting horizontally and vertically, where extremely rapid setting, fast turn-around times are needed.
◆ Suitable for cooler temperatures and inclement conditions, including -10 °C temperatures and wet substrates.
◆ Grouting in external environments where applications are 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, safety barriers, balcony stanchions, canopies, signs, handrails, racking, machinery, masonry supports, stadium seats, reinforcing and starter bars.

ADVANTAGE

◆ Fast curing - cures down to -10 °C when material is pre-conditioned to 5 °C.
◆ Cartridge format compatible with standard application guns.
◆ High load capacity.
◆ Suitable for cracked and uncracked concrete.
◆ Styrene-free, VOC-compliant and odorless.
◆ Non-sag, may be applied overhead.
◆ Sets up 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 allowing critical applications.
◆ Reduced drilling diameters of 2 mm clearance resulting in economic installation.
◆ Flexible embedment depths from 8d -12d.
◆ Resistant to a wide range of chemicals.

TECHNICAL DATA

Packaging	*360ml side-by-side 5:1 cartridges/20 per case*
Color	*Component A: white, Component B: grey/ red* *Component A+B mixed: grey /pink*
Shelf Life	*12 months if stored properly in original and unopened packaging, in cool and dry conditions, out of direct sunlight, and at temperatures between 5 and 25 °C (41 and 77 °F). Pre-condition product to 23 °C (73 °F) to ease application when using hand dispensers and working at low temperatures.*
Mix Ratio	*A: B = 5:1 by volume*
Service Temperatures	*-40 °C min. / +50 °C max.*

Viscosity of Mixture	*15 pa·s*
Density after curing	*1.6 g/cm³*
Tensile Strength (ASTM D638)	*55 Mpa min.*
Tensile Modulus (ASTM D638)	*3500 Mpa min.*
Elongation (ASTM D638)	*0.3 % min.*
Flexural Strength (ASTM D790)	*55 Mpa min.*
Compressive Strength (ASTM D695)	*80 Mpa min.*
Thixotropy Index	*4.2 min.*
Sagging Mobility (25°C)	*1.4mm max.*
Distortion Temperature	*66 °C min.*
Steel-Steel Tensile Anti-shear Strength	*16 Mpa min.*
Under the constraint drawing condition, ribbed steel bars and C30, Φ25, L=150mm Tensile Strength	*11 Mpa min.*
Boding Strength with Concrete C60, Φ25, L=125mm	*18Mpa min.*
Steel-steel T Impact Stripping Length	*25mm max.*
Non-volatile Matter Content (solid content)	*99.5 % min.*
Wet and Heat Ageing	*shear strength decrease rate: 8 % max..*
Heat Aging Resistance	*shear strength decrease rate: 4.7 % max..*
Freezing and Thawing	*shear strength decrease rate: 3.8 % max..*
Fatigue Stress	*2×10^{6} times continuous sine wave fatigue loads, no specimen destroys.*
Stress Resistance	*no steel - steel tensile shear specimens destroy, creep deformation value: 0.1 mm max..*
Salt Resistance	*strength decrease rate: 4.3 % max., no cracks or come unglued.*
Alkaline Resistance	*no strength decrease; as the concrete damage, no cracks or come unglued.*
Acid Resistance	*concrete damage, no cracks or degumming.*

OPERATION PROCEDURE

Surface Pretreatment

Surfaces must be clean and sound. Surfaces/holes may be dry, damp or wet. Remove dust, laitance, grease, oil, curing compounds, impregnations, waxes, foreign particles and disintegrated materials. Substrate strengths must be verified, with pull-out tests being conducted if strength is unknown.

Application

1.Drill the hole to the correct diameter and depth to suit the anchor, using a rotary percussion drill and carbide-tipped bit.

2.Thoroughly clean the hole in the above sequence. Use an air lance inserted into the back of the hole with the trigger depressed for 2 seconds, blow out all debris. The compressed air must be free from oil and water with a minimum pressure of 6 bar (90 psi).

If using a hand pump for holes of 400 mm deep or less, pump twice to achieve clean holes. If the hole collects water after the initial cleaning this water must be removed before injecting the resin.

3.Select an appropriately sized steel brush, ensuring it is in good condition and suited to the diameter of the drilled hole. Insert the brush to the back of the hole and pull out using a back and forth rotating motion to remove all loose friable material. Repeat the brushing operation.

Repeat the steps 2 and 3, finishing with step 2.

4.Select the appropriate static mixer nozzle for the installation. Also make ready a good quality dispensing gun, ensuring it is good working order and of sufficient mechanical advantage to extrude the anchoring adhesive.

5.Unscrew and remove the protective cap. Attach the static mixer nozzle to the cartridge. Load the cartridge into the dispenser and trigger the dispenser until a uniform color (no streaking) and consistency are achieved with unmixed material going to waste.

Where called for, cut an extension tube to the depth of the hole and push onto the end of the static mixer, and for rebars 16 mm diameter or more, fit the correct resin stopper to the end of the extension tube.

6.Insert the static mixer tip (resin stopper / extension tube if applicable) to the base of the hole. Begin to extrude the resin, under constant and uniform pressure and slowly withdraw the static mixer from the hole. Fill the hole to approximately ½ to ¾ full and remove the static mixer tip completely. If dispensing is interrupted or altered, re-establish consistency of resin prior to continuing. When using a manual dispenser, release piston pressure by pressing thumb plate at every pause in extrusion.

7.Insert the threaded bar or reinforcing (both should be free from oil or other release agents) to the back of the hole using a back and forth rotating motion and ensuring all the threads are thoroughly coated. Adjust to the correct position within the stated working time.

Any excess resin should be expelled from the hole evenly around the steel element showing that the hole is full. This excess resin should be removed from around the opening to the hole before it sets.

8.Leave the anchor undisturbed until the appropriate loading time has been achieved, which will be dependent upon the
substrate conditions and ambient temperatures.

9.Attach the fixture and tighten the nut to the recommended torque, DO NOT OVERTIGHTEN.

CLEAN UP

Collect with absorbent material. Dispose of in accordance with local disposal regulations. Uncured material can be removed with Epoxy Cleaner. Cured material can only be removed mechanically.

LIMITATIONS

◆*FSFIX360* is not intended as a cosmetic or decorative material and when anchoring into porous substrates or reconstituted stone, staining may occur.
◆Store and pre-condition material to above 10 °C to ease application when using manual dispensers; the higher the temperature the easier to dispense (a maximum storage and pre-conditioning temperature of 22 °C is recommended as working time is significantly reduced at this temperature and above).
◆Minimum age of concrete must be 28 days, depending on curing conditions.
◆Do not thin; solvents will prevent proper cure.
◆Standard and quality of dispenser will impact upon ease of extrusion, especially when using manual equipment; ensure the mechanical advantage is appropriate, pistons are correctly aligned and even pressure is achievable.
◆*FSFIX390* must only be applied on or into substrates when they are frost-free.

HEALTH & SAFETY INFORMATION

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.
