

FUERZA ANCRO-SEAL

EPOXY RESIN BASED ANCHORING GROUT

FUERZA ANCRO-SEAL is a **high-performance, two-component epoxy anchoring system** supplied in a **pre-measured 1:1 mixing ratio**. It is formulated as a **high-strength, non-shrink structural adhesive and anchoring grout** for the secure installation of **anchor bolts, threaded rods, reinforcing bars (rebar), dowels, and structural fixings** in concrete and masonry substrates.

The cured epoxy develops **excellent compressive, tensile, and bond strengths**, ensuring reliable load transfer, outstanding dimensional stability, and long-term durability under demanding service conditions. **FUERZA ANCRO-SEAL** complies with the performance requirements of **ASTM C881** for **Type I, II, IV & V, Grade 3, Class B & C**, making it suitable for critical structural anchoring and bonding applications.

APPLICATIONS

- Designed for **high-strength structural anchoring** of machinery holding-down bolts, crane rail systems, railway track fasteners, and other heavy-duty equipment.
- Suitable for the installation of **rock anchors, marine fixtures, and submerged structural components**, including underwater anchoring applications.
- Recommended for the permanent fixation of **starter bars, reinforcing dowels, base plates, anchor bolts, foundation bolts, and embedded structural connections**.
- Provides **high-performance bonding** for the installation and anchorage of reinforcing steel (rebar) in concrete.
- Forms a **durable, corrosion-resistant encapsulation** around embedded anchors and threaded rods, ensuring long-term protection in wet, submerged, and aggressive service environments.

ADVANTAGES

- **Optimized curing characteristics** ensure predictable setting behavior and rapid development of mechanical strength.
- **Non-expansive and non-shrink formulation** provides exceptional dimensional stability and maintains complete contact with the substrate.
- **Excellent corrosion resistance**, protecting embedded steel anchors and reinforcement in aggressive service environments.
- **High resistance to dynamic loads and vibration**, ensuring long-term structural integrity under cyclic loading conditions.
- **Achieves high bond performance with reduced embedment depths and smaller drilled hole diameters**, minimizing drilling requirements, installation time, and overall project costs.

TECHNICAL INFORMATION

Supply form:	Thixotropic paste
Density:	1.85 kg/liter
Work life:	45 minutes at 30°C
Touch dry:	1-2 hours at 30°C
Hard dry:	4-6 hours at 30°C
Full cure:	7 days

PERFORMANCE MECHANISM

Upon mixing, the **epoxy resin and curing agent undergo a controlled polymerization reaction**, forming a **rapid-curing, non-shrink, dimensionally stable thermoset matrix**. The fully cured system exhibits **exceptionally high compressive and bond strength**, together with outstanding **abrasion resistance, chemical resistance, and long-term structural durability**, making it suitable for demanding anchoring and precision grouting applications.

METHOD OF APPLICATION

Hole Preparation:

Drilled holes shall be **clean, dry, dust-free, and mechanically profiled** to achieve optimum bond performance. Rotary drilling followed by cleaning with **oil-free compressed air, vacuum extraction, or suitable solvent flushing** is recommended. Holes with smooth parallel sides should be roughened to enhance mechanical interlock. Diamond-cored holes shall be **under-reamed or surface-profiled** to provide adequate anchorage and maximize load transfer capacity.

Bar Preparation:

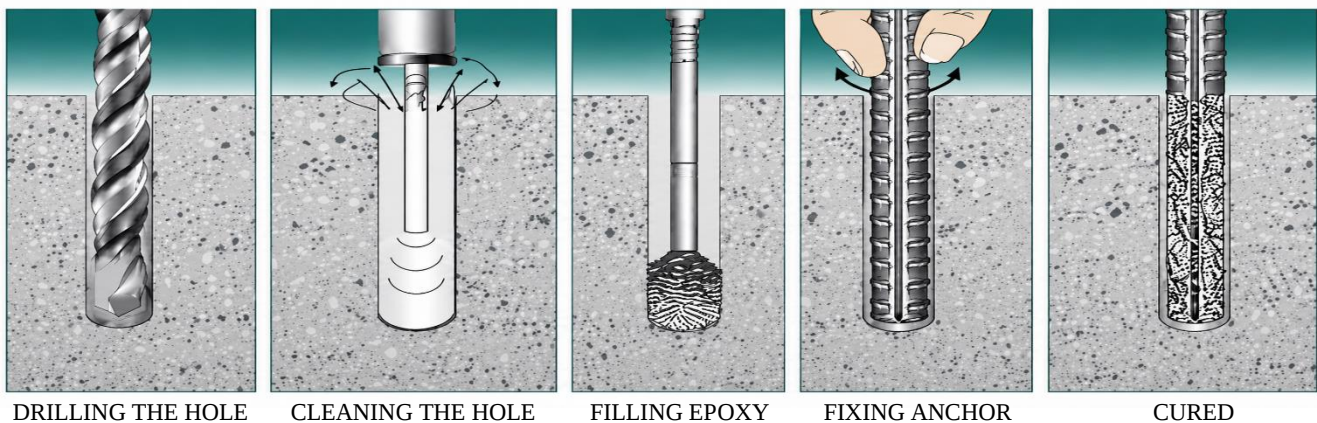
All anchor bolts, threaded rods, and reinforcing bars shall be free from **oil, grease, laitance, rust scale, and other contaminants** prior to installation. Loose corrosion products should be removed to ensure maximum adhesive bond strength.

Mixing:

FUERZA ANCRO-SEAL shall be mixed using a **low-speed drill fitted with an appropriate mixing paddle**. Thoroughly blend **Part A and Part B** in a clean, non-reactive container until a uniform, homogeneous consistency is achieved. For small-volume applications, partial mixing may be undertaken while maintaining the specified mixing ratio. To minimize material wastage, prepare only the quantity required for immediate use within the product's working time.

Application:

Fill the prepared hole with the mixed adhesive using a **spatula, grout gun, or suitable injection device**, ensuring complete filling without entrapped air. Immediately insert the anchor bolt, threaded rod, or reinforcing bar with a **slow twisting motion** to achieve full encapsulation and uniform adhesive distribution. Maintain the anchor in its specified position until the adhesive has fully cured, and **do not apply any load or disturbance during the curing period**.



PACKAGING, STORAGE & SHELF LIFE

FUERZA ANCRO-SEAL is supplied in **2 kg & 6 kg kits**. The product has a **shelf life of 12 months** when stored in its **original, unopened packaging** under **cool, dry conditions**, protected from direct sunlight and excessive heat.

HEALTH & SAFETY PRECAUTIONS

Avoid prolonged contact with **skin and eyes** during handling. Appropriate **personal protective equipment (PPE)**, including chemical-resistant gloves and safety goggles, should be worn. In the event of eye contact, immediately flush with **copious amounts of clean water** for at least 15 minutes and seek medical attention if irritation persists.

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>RESULT</u>
CONSISTENCY	ASTM C 881	Non-sag/Thixotropic paste
HEAT DEFLECTION	ASTM D 648	136° F (58° C)
BOND STRENGTH (MOIST CURE)	ASTM C 882	3,218 psi (2 days), 3,366 psi (14 days)
WATER ABSORBTION	ASTM D 570	0.110% (24 hours)
COMPRESSIVE YEILD STRENGTH	ASTM D 695	5,065 psi (24 hours), 12,650 psi (7 days)
GEL TIME (75° F)	ASTM C 881	30 min – 60 gram mass 60 min – thin film

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