



FESTER EPOXINE 600 GROUT

Grout or epoxy mortar

Thermofix epoxy-amine adhesive, comprised of three, 100% solvent-free solid components. Upon mixing the components, a fast-acting catalyzing reaction is produced, which allows anchored equipment to enter operation in 24 hours. Fester Epoxine 600 Grout is suitable for anchoring heavy or light machinery and equipment where maximum anchoring and fastening performance is achieved in a short time frame.

USES

- Excellent for anchoring and fixing dynamic or static industrial machinery and heavy equipment, ensuring stability and proper leveling required for optimal performance.
- Ideal for anchoring bolts, hooks, metal bases, screws and/or for mounting equipment, heavy machinery, or metal structures.
- Suitable for reciprocating pumps used in the oil industry, rails for dockside gantry cranes, machinery in mills and manufacturing processes, fixing corrugated rebar in construction applications, and in general for all types of industrial machinery and equipment where a high performance anchoring product is indispensable.
- Anchoring and general installation of turbines and wind power generation equipment.
- Suitable for anchoring equipment and machinery in a single, relatively low-volume pour, thereby preventing catalyzation reaction heat from affecting other concrete elements.
- Broadly used in oil refineries, electric power generation plants, wind farms and many other industries requiring high-performance anchoring..

ADVANTAGES

- Achieves high mechanical and chemical resistance in 24 hours at 25°C. These mechanical resistances include compression, bending, tension, torsion, abrasion, and impact at an early age. Withstands vibration without cracking.
- Offers optimal fluidity allowing easy pouring under and around metal footer plates of pre-leveled equipment.
- Ideal for anchoring equipment that needs to be up and running in 24 hours.
- Solvent-free product provides stabilized volume with no risk of contraction.
- Excellent adhesion to concrete and steel.
- Does not require primer.
- Protects anchor materials from chemical attacks, resists lubricating oils and greases without the need of surface coating.



- The volumetric stability of the product helps prevent vertical or lateral movements in anchor bolts.
- Equipment and machinery anchored with Epoxine 600 Grout can be put into operation in approximately 24 hours, depending on local temperature conditions.
- Maintains performance properties in surfaces exposed to temperatures up to 70°C. Consult Fester's technical department for recommendations in operational conditions at or above 104°C.
- Once poured and properly set, Fester Epoxine 600 Grout is light gray in color and does not require protective coating.
- Suitable for indoor or outdoor applications.
- Offering optimal adhesion properties, Fester Epoxine 600 Grout allows partial anchoring, without need of extra preparation when resuming work.
- Fast and easy to use.

INSTRUCTIONS

1. Surface prep.

Concrete: Optimal hardening in 21 days, totally dry and free of curing membranes, oil, grease and structurally sound. To optimize adhesion, surface crust must be removed and aggregate layer exposed. This can be achieved by scoring or sandblasting. Using wire brush or air pressure remove dust or poorly bonded materials.



Metal: All metal surfaces in contact with Fester Epoxine 600 Grout must be clean and free of contaminants that might prevent adhesion. For optimal bonding, score metal the surfaces with grinder or light sand blasting.

Scoring/cleaning of metals should be done immediately before using the product and/or otherwise protected to prevent re-oxidation.

Concrete forms and other elements you do not want in contact with the epoxine grout should be protected with paraffin or heavy gauge polyethylene film.

The support elements must be properly fixed to prevent movement during pouring.

2. Mixing.

To achieve optimal fluidity during pour, components should be at a temperature of between 20°C to 28°C.

Completely empty component "B" into container containing component "A" and mix for 2 minutes until homogeneous. Mixing should be done at a controlled speed with a drill and mixing paddle to ensure air is removed from the mixture. Use spatula to scrape material from the walls and bottom of mixing container.

Make sure the mixture is completely homogeneous, if necessary, extend mixing time up to a maximum of 3 minutes.

Empty the "A+B" mixture into clean and dry trough, wheelbarrow bucket or tray. Using a trowel, gradually mix in almost all mineral fillers (component "C") into mix.

The best results are achieved using a low-speed cement mixer or drill affixed with mixing paddle. When mixing, set speed to prevent any foam production. For rapid pouring and where the mixer, construction conditions and ambient temperature permit, two Fester Epoxine 600 Grout mixes can be prepared at a time.

Fester Epoxine 600 Grout has a lifespan of approximately 35 to 40 minutes at 25oC. This time may vary with ambient temperature. Mixed product should always be poured immediately.

3. Application

Fester Epoxine 600 Grout is used by pouring the product around the element to be anchored or under footer plates. The fluidity of the products ensures product will fill in the gaps. Optimal fluidity is achieved above 20°C. To enhance flow under metal footer plates bases and ensure optimal support, we recommend you use chains, rebars, vibrators and striking the metal footer plates firmly with hammer.

To obtain smooth surface finish, when the product feels dry to the touch, irrigate surface with standard thinner and polish with a metal trowel.

Grout curing time is directly influenced by ambient temperature, and the temperature of equipment body and concrete.

Anchored equipment can be operated after 24 hours.

4. Cleaning mixing equipment.

Commercial thinner can be used for cleaning utensils and tools before the product begins to set. Otherwise, use mechanical means.

Thoroughly clean mixer whenever mixing activities are interrupted. To clean mixer and remove debris, run it with sand and gravel, then scrape walls and paddles using by long-handle trowel. Finally, you can finish cleaning process with a little thinner, taking care not to cause sparks by hitting metal against metal and with mixing equipment disconnected from power source and far from and source of ignition.

When using this product, shrinkage of 2% should be considered.

YIELD

Sack with 56 kg mixes to volume of 25.1 liters.

APPROXIMATE YIELD

Volumen a rellenar en m ³	No. de unidades
0.5 m ³	19.9 unidades de 56.0 kg
1 m ³	39.8 unidades de 56.0 kg
5 m ³	199.2 unidades de 56.0 kg
10 m ³	398.4 unidades de 56.0 kg

IMPORTANT INFORMATION

To optimize the results in mixing, use mechanical equipment, such as a low-speed mixer or low-speed drill and paddle blades. In either case, make keep revolutions low to prevent formation of foam.

Make sure components "A" and "B" have the same batch number.

Concrete forms must be coated in advance with heavy gauge polyethylene film to prevent adhesion.

Fester Epoxine 600 Grout requires specialized labor.

Do not install on wet concrete surfaces.

Fester Epoxine 600 Grout should not be applied to surfaces contaminated with oil, grease, mold release agents, etc.

When optimal fluidity is required, avoid using Fester Epoxine 600 Grout in temperatures below 15°C. In such cases, the



product should be poured when temperature is near or at 25°C.

Product components must not be exposed to sun while waiting to be mixed. Keep product components in the shade.

Avoid preparing and installing this product directly under direct sunlight. Cover metal or concrete elements with tarp to ensure they are not heated by direct exposure to sunlight.

Do not alter the proportions of the components of this product.

For anchorage or base requirements where volumes are greater than 100 L, Fester Epoxine 800 Grout is recommended. This product offers controlled catalyzation and allows anchored equipment to operate after 3 days. (See Technical Sheet),

In very warm regions, use Epoxine 800 Grout.

Remember: when Fester Epoxine 600 Grout is used at low temperature, its fluidity is diminished And curing time is extended.

PRECAUTIONS

Use proper personal protective equipment, rubber gloves, dust mask, goggles and apron as recommended in industrial safety sheet.

Do not leave within reach of children.

Avoid direct contact with component "B".

The use of the Fester Epoxine 600 Grout in structural elements may be considered some manner of metal assembly.

Support elements must be properly fixed to prevent movement during pouring.

With VOC content of 0.0 g/L Fester Epoxine 600 Grout

ECOLOGICAL PROPERTIES

contributes to improving the quality of the environment by reducing irritating and harmful fumes.

PACKAGING AND CONTAINERS

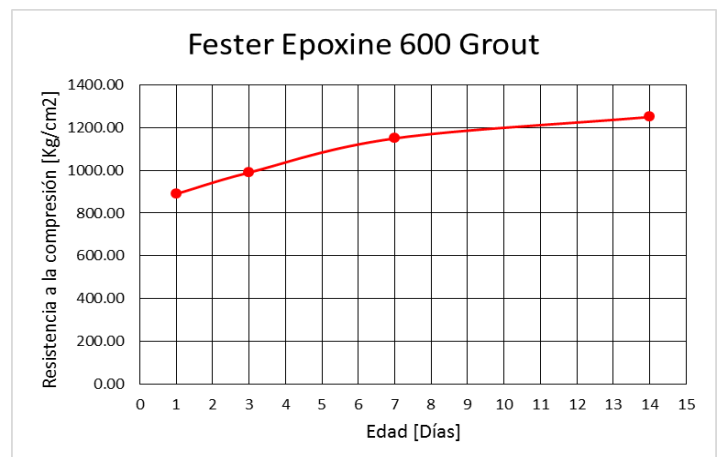
CONTAINERS	56 kg unit Component "A": 19L bucket Component "B": 1L bucket Component "C": 48 kg sack
STORAGE	Store in a cool, dry place out direct sunlight and at a temperature of between 15oC and 30oC.
EXPIRATION	24 Months
STACKING	Bucket: 5 buckets high Bucket: 3 buckets high Sack: 5 sacks high



PHYSICAL PROPERTIES

TEST	ASTM METHOD	SPECIFICATION	TYPICAL VALUE
Density A+B+C, at 25°C g/cm ³	D-1475	2.18 - 2.28	2.23
Pot Life AT 25°C, 400 grams of mixture A+B+C	D-2471 MOD	70 - 110	90
Fluidity at 25°C, 1 L container	Internal	Minimum 225%	250%
Hardening at 25°C	Internal	Maximum 3.5 hrs.	3 hrs
Compression resistance	C-579-01 Method B modified	A 24 hrs. min 850 kg/cm ² A 7 day mins 1000 kg/cm ²	A 24 hrs. 890 kg/cm ² A 7 days 1150 kg/cm ²
Bending resistance	C-580	A 24 hrs. mins 280 kg/cm ² A 7 day mins 300 kg/cm ²	A 24 hrs. 330 kg/cm ² A 7 days 380 kg/cm ²
Absorption of water (7 days) by weight, %	C-413	Maximum 0.2 %	Meets
Concrete adhesion	C-882	Minimum 300 kg/cm ²	350 kg/cm ²
Metal adhesion	Internal	Minimum 300 kg/cm ²	350 kg/cm ²
Expansion coefficient (linear shrinkage)	C-531	Maximum 0.03%	Meets
Impact Resistance	Mil-D-3134J	>80 lb-in	Meets
Shore D hardness	D-2240	85 - 95	90
Maximum Thermal Expansion Coefficient F (C), 14 days of curing	D-696-08 e1	-----	9.28E-6 (16.70E-6)

Age in days	Compression strength		
	Kg/cm ²	MPa	Psi
1	890	87.3	12,659
3	990	97.1	14,082
7	1150	112.8	16,357
14	1250	122.6	17,780



Y AXIS: Compression resistance

X AXIS: Age (Days)



PHYSICAL PROPERTIES

TEST	METHOD	SPECIFICATION	TYPICAL VALUE
Compression elasticity module Kg/cm2 (psi) - 14 days of curing	C-580-02 (2008)	-----	141,285 (2,009,070)
Bending elasticity module kg/cm2 (psi) - 14 days curing	C-580-02 (2008)	-----	142,390 (2,081,662)
Exothermic peak (50 mm diameter cylinder and 100 mm high test at 25°C)	D 2471-99	-----	58°C
Maximum working temperature in centigrade.	Internal	-----	70
Minimum tensile strength kg/cm2 (psi) - 14 days of curing	C 580-02 (2008)	-----	140 (1,991)
Resistance to Impact at 14 days of curing	MIL STD D 3134 J (1989)	-----	Greater than concrete
Fire resistance at 14 days curing	D635-06	-----	Self extinguishes

Notes:
 The data included were obtained under laboratory conditions.
 Except when stated otherwise, typical values provided in the table are averages based on specimens examined under Controlled Laboratory Conditions for 7 days at 25°C .
 To ascertain adhesion fault load, mortar specimens with resistance of 600 kg/cm² were used.
 See technical sheet: Fester Epoxine 800 Grout



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