



FESTER EPOXINE 800 GROUT

Grout or epoxy mortar

Thermofix amine epoxy mortar tri-component with 100% solvent-free, solid components. Upon mixing components, a gradual catalytic reaction is generated, making it suitable for warm regions and for preventing grout overheating that can damage concrete.

USES

- 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.
- For anchoring equipment in new installations or for existing equipment.
- Optimal fluidity allows product to flow under metal footer plates of pre-leveled equipment.
- Broadly used in oil refineries, electric power generation plants, wind farms and many other industries requiring high performance anchoring.

ADVANTAGES

- Generates high mechanical and chemical resistance in 72 hours at 25°C. This includes mechanical resistance to compression, bending, tension, torsion, abrasion and impact at early age. Withstands vibration without cracking.
- Ideal for very warm regions and environments, where higher temperature create difficulties for other products
- Ideal for projects in which equipment if installed gradually and 100 liters or more are needed.
- Very low exothermic peak.
- Optimal fluidity for pouring under and around metal footer plates of pre-leveled equipment.
- Volumetrically stable product. Does not contain solvents thereby eliminating risk of contraction.
- Excellent adhesion to concrete and steel.
- Does not require primer.
- Protects anchor materials from chemical attack and resists lubricating oils and greases.



- The dimensional stability of product helps prevent vertical or lateral movements of anchor bolts.
- Equipment and machinery anchored with or mounted on Epoxine 800 Grout can resume operation in approximately 72 hours, depending on the 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, Epoxine 600 Grout is light gray in color and does not require protective coating.
- Suitable for indoor or outdoor conditions and does not require coating.
- Offering optimal adhesion properties, Epoxine 800 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 of air pressure, remove dust or any poorly bonded materials.



Metal: All metal surfaces in contact with Epoxine 800 Grout must be clean and free of contaminants that might prevent adhesion. For optimal bonding, score metal 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 mixture of the "A+B" parts into cement mixer which must be completely dry. Run mixer and gradually add the component "C" (mineral load), taking care that it is completely integrated and without clumps.

For rapid pouring and where the mixer, construction conditions and ambient temperature permit, two Fester Epoxine 800 Grout mixes can be prepared at a time.

Fester Epoxine 800 Grout has a lifespan of approximately 150 minutes at 25°C. This time may vary with ambient temperature. Mixed product should always be poured immediately.

3.Application.

Fester Epoxine 800 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 20oC. To enhance flow under metal footer plates bases and ensure optimal support, we recommend you use chains, rebars, vibrators and tapping 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 3 days.

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.

YIELD

112 kg unit fills volume of 52 liters.

Approximate yields	
Volumen a rellenar en m ³	No. de unidades
0.5 m ³	9.6 unidades de 112 kg
1 m ³	19.2 unidades de 112 kg
5 m ³	96.15 unidades de 112 kg
10 m ³	192.3 unidades de 112 kg

IMPORTANT INFORMATION

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

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.

Ensure that components A, B and C bear the same lot number. Concrete forms must be lined with heavy gauge polyethylene film as a demolding agent.

Fester Epoxine 800 Grout requires specialized labor.

Do not install on wet concrete surfaces.

Fester Epoxine 800 Grout should not be applied to surfaces contaminated with oil, grease, mold release agents, etc.

When optimal fluidity is required, avoid using Fester Epoxine 800 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 less than 100L, Fester Epoxine 600 Grout is recommended. This product offers fast catalyzation for urgent applications and maximum ambient temperature of 30°C (See technical sheet).

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 800 Grout in structural elements may be considered some manner of metal assembly.

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

ECOLOGICAL PROPERTIES

With VOC content of 0.0 g/L Fester Epoxine 600 Grout contributes to improving the quality of the environment by reducing irritating and harmful fumes.

PACKAGING AND CONTAINER

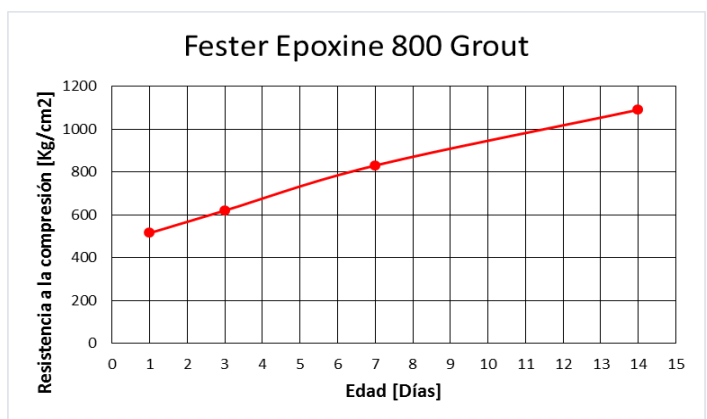
CONTAINERS	Unidad con 112 kg Component "A": 19L bucket Component "B": 4L bucket Component "C": two 48 kg sacks
STORAGE	Store in a cool, dry place out direct sunlight and at a temperature of between 15oC and 30oC.
EXPIRATION	24 months
MAXIMUM STACK	Bucket: 5 buckets high Bucket: 3 buckets high Sack: 5 sacks high



PHYSICAL PROPERTIES

PROPERTIES	METHOD ASTM	SPECIFICATION	TYPICAL VALUE
Density A+B+C, at 25oC g/cm ³	D-1475	2.15 ± 0.05	2.15
Recommend temperature range for optimal use °C	N A	15 - 45	Meets
Pot Life AT 25oC, 400 grams of mixture A+B+C	D- 2471 Mod.	190 - 250	220 (3:40 hr)
Fluidity at 25°C, 1 L container	Internal	Minimum 240 %	280%
Hardening	Internal	Maximum 5.5 horas	5 horas
Compression resistance	C- 579-01 Method "B" Modified	@ 1 day: minimum 475 @ 3 days: minimum 500 @ 7 days: minimum 800 @ 14 days: minimum 950	515 (7,325) 620 (8,819) 830 (11,806) 1,090 (15,504)
Compression elasticity module Kg/cm ² (psi) - 14 days of curing	C - 580-02	141, 285 (2,009,616)	Meets
Bending strength, kg/cm ² (psi)	C- 580	@ 7 days: minimum 280	310 (4,408)
Bending elasticity module kg/cm2 (psi) - 14 days curing	C - 580-02	192, 300 (2,735,247)	Meets
Absorption of water (7 days) by weight, %	C- 413	maximum 0.2 %	Meets
Concrete adhesion, 300 kg/cm ² , Kg/cm ² (psi at 14 days	C – 882-05e1	Minimum 300 (4,267)	350 (4,978)
Tensile strength of adhesion to concrete Kg/cm ² (psi) at 14 days	C – 882-05e1 Mod.	Minimum 295 (4196)	Meets
Adherence to concrete or to cement grout * kg/cm ²	C – 882-05e1	S/ primer 70.0 C/ primer and silica 200.0	Meets
Metal adherence , kg/cm2 (psi) @ 14 days.	Internal	Minimum 250 (minimum 3,556)	300 (4,267)

Age in days	Compresión strength		
	Kg/cm2	MPa	Psi
1	515	51.0	7,325
3	620	61.0	8,819
7	830	81.4	11,806
14	1090	107.0	15,504



Y axis: Compression strength (kg/cm2)

X axis : Age (days)



PHYSICAL PROPERTIES

PROPERTIES	METHOD ASTM	SPECIFICATION	TYPICAL VALUE
Minimum tensile strength kg/cm ² (psi) - 14 days of curing	C – 580-02	138 (1,963)	Meets
Maximum linear contraction, %	C - 531-00 C - 827-10	< 0.03%	Meets
Maximum Thermal Expansion Coefficient F (C) - 14 days of curing	D - 696-08e1	Maximum	16.78 x10 ⁻⁶ / °C 9.32 x10 ⁻⁶ / °F
Exothermic peak (50 mm diameter cylinder and 100 mm high test at 25°C) (77°F)	N D	34.0 °C 93.0 °F	Meets
Service temperature after curing is completed °C	N A	** Up to 70	Meets
Fire resistance at 14 days curing	D – 635-06	Self extinguishes	Meets
Resistance to Impact at 14 days of curing	Mil- Std D-3134J (1989)	>80 lb-in. Very superior to concrete	Meets
Shore D hardness	D -2240	85 - 95	90
Stability in container	D-1849	24 months	Meets

Notes:
 * For details on how to achieve adhesions under these conditions, consult Fester's technical department.
 After 3 days of curing and exposure to temperatures up to 70°C, this product retains its properties without change. ** For use in temperatures up to 104°C, consult Fester's technical department to review operational conditions and receive pertinent recommendations.
 Except when otherwise specified, typical values provided in the table are averages based on specimens examined in Controlled Laboratory Conditions for 14 days at 25°C.
 To ascertain adhesion fault load, mortar specimens with resistance of 600 kg/cm² were used. In unions with conventional concrete, the concrete fails at around 300-350 kg/cm², while the joint remains intact.

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