



Fixmaster[®] Anchor Bolt Grout

February 2008

PRODUCT DESCRIPTION

Fixmaster[®] Anchor Bolt Grout provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	White paste
Appearance (Hardener)	Black paste
Appearance (Mixed)	Grey paste
Components	Two component - requires mixing
Mix Ratio, by volume - Resin : Hardener	1 : 1
Mix Ratio, by weight - Resin : Hardener	100 : 80
Cure	Room temperature cure after mixing
Application	Grouting
Application Temperature	5 to 45 °C

Fixmaster[®] Anchor Bolt Grout is a two component, 100% solids epoxy designed to anchor threaded rod, bolts, rebar dowels and smooth dowels into concrete, grout filled block, and other non reinforced masonry. Typical applications include seismic anchoring and bracing, grouting dowel bars and tie bars for full-depth concrete pavement repairs, capping paste for crack injection, and pick proof sealant (windows, doors, locks, correctional facilities). Fixmaster[®] Anchor Bolt Grout should not be used for long term sustained loads.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:

Density @ 25 °C, g/ml	1.54 to 1.74 ^{LMS}
Viscosity, Brookfield, 25 °C, mPa·s (cP)	200,000 to 240,000 ^{LMS}

Flash Point - See MSDS

Hardener:

Density @ 25 °C, g/ml	1.39 to 1.75 ^{LMS}
Viscosity, Brookfield, 25 °C, mPa·s (cP)	210,000 to 250,000 ^{LMS}

Flash Point - See MSDS

Mixed:

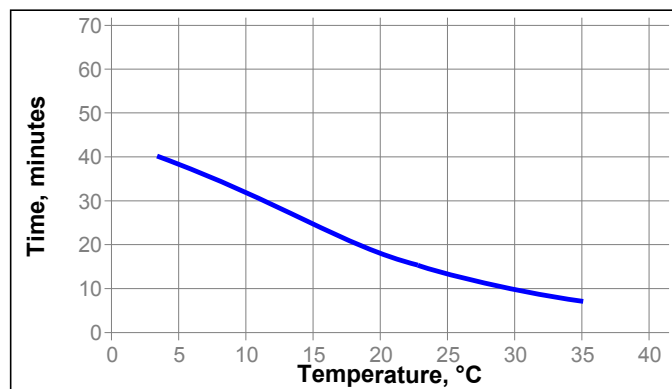
Working Time @ 25 °C, minutes	20
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TYPICAL CURING PERFORMANCE

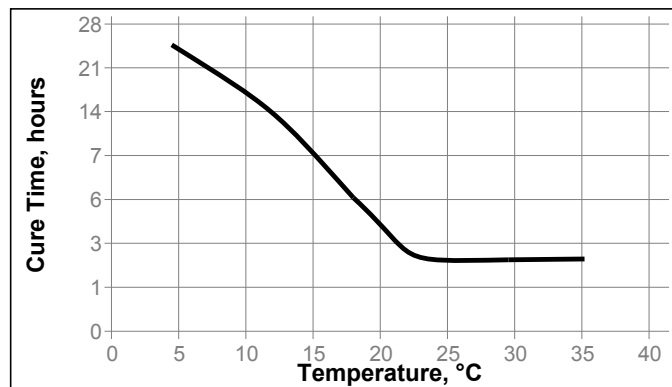
Curing Properties

Cure Time @ 25 °C, hours	2
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Working Life



Cure Time



TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 22 °C for 24 hours

Physical Properties:

Compressive Strength, at failure, ISO 604	N/mm ² ≥49 ^{LMS} (psi) (≥7,100)
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Cured @ 25 °C, for 7 days

Physical Properties:

Tensile Strength, ISO 527-2	N/mm ² 51 (psi) (7,400)
Compressive Strength, at yield, ISO 604	N/mm ² 82 (psi) (11,900)
Compressive Modulus, ISO 604	N/mm ² 1,390 (psi) (201,300)
Elongation, at failure, ISO 527-2, %	1.8

Water Absorption, ISO 62, %:	
24 hours in water @ 22 °C	0.52
Linear Shrinkage, ISO 1675 %	0.4

Cured for 2 days @ 25 °C

Physical Properties:

Bond Strength, ASTM-C882	N/mm ²	10
	(psi)	(1,410)

Cured for 14 days @ 25 °C

Physical Properties:

Bond Strength, ASTM-C882	N/mm ²	16
	(psi)	(2,340)

TYPICAL PERFORMANCE OF CURED MATERIAL

Tension Load (1/2"), ASTM E488	N	62,870
1/2" threaded rod at *9D in 3,000 psi concrete.	(lb)	(14,150)

*9D is the embedment depth of the anchor (9X1/2"); in this example, a 1/2" threaded rod embedded 4-1/2" in 3,000 psi concrete.

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

Directions for use

1. Drill hole to desired diameter and depth. Clean out the hole and brush with a bristle brush. Blow out the remaining dust from the bottom of the hole and ensure that the surface is clean and dry.
2. Remove plastic cap and plugs from the cartridge. Dispense a small amount of adhesive to ensure that both black and white materials flow freely and evenly from the cartridge.
3. Attach mixing nozzle to cartridge and dispense a small amount of adhesive into a waste container.
4. Fill holes 1/2 to 3/4 full by dispensing adhesive, beginning at the bottom of hole.
5. Insert the anchor bolt, threaded rod or rebar to the bottom of the hole while turning clockwise.
6. Do not touch or bolt-up until the recommended adhesive cure time has passed.

Loctite Material Specification^{LMS}

LMS dated January 22, 2008. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

Storage

Store product in the unopened container in a dry location. Material removed from containers may be contaminated during use. Do not return liquid to original container. Storage information may be indicated on the product container labeling.

Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those recommended. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\mu\text{m} / 25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note

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Reference 0.1