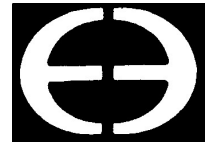


560

E-BOND 560 LO-MOD GEL

FORMULATED AND LABELED FOR PROFESSIONAL USE ONLY
NOT FOR SALE TO OR USE BY THE GENERAL PUBLIC



PRODUCT DATA

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DESCRIPTION

E-BOND 560 LOW-MOD is a 100% solids, solvent-free, two-component **MOISTURE INSENSITIVE** epoxy resin system. Has unique **LOW-MODULUS OF ELASTICITY**, which allows for variations in stress and temperature. With proper aggregate loading, it provides an epoxy mortar/concrete with a co-efficient of expansion very close to Portland-cement concrete. 560 Low-Mod Gel produces a gel-like consistency as a gap filling material for bonding irregular materials, concrete, wood, steel, etc. 560 Gel is also recommended to grout anchor bolts and set dowels. Mixed with salt-free, kiln-dried silica aggregate to produce a sag resistant mortar for overhead and vertical patching.

E-BOND 560 LOW-MOD conforms to ASTM-C-881, Type III, Grade 3, Class B and C, AASHTO-M235-91

FEATURES:

- Easy mixing ratio of 1 to 1 for the two components
- Gel-like consistency
- Insensitive to moisture before, during and after cure
- Exterior epoxy mortar/concrete repair to resist thermal movement
- Provides excellent adhesion to most structural materials
- Fast setting; provides high early strength within 24 hours
- Low Temperature cures as low as 40°F(4°C)
- Zero VOC - Fully reactive, No low boiling constituents

For Best Performance

- Precondition the components to 70°F (23°C) to 80°F (27°C) for 24 hours before use.
- Minimum ambient, surface, aggregate and epoxy temperatures should be 50°F (10°C) and rising at the time of application.
- Store at 60°F to 90°F (16°C to 32°C).
- Minimum age of concrete must be 21-28 days prior to application of mortar or sealer on slabs.
- Protect from freezing and inclement weather
- Do not add solvents or water to epoxy material.
- Do not alter or change the recommended proportions when blending the components.
- Shelf Life – 1 Year from date of manufacture stored in closed original container

PHYSICAL PROPERTIES

Material & curing conditions@ 75°F and 50% RH

Type:	Moisture Insensitive & Low Temperature Cure Low Modulus, Gel Epoxy		
Color:	Part A Resin	White	
Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure	Part B Hardener	Black	
	Admix	Light Gray	
Mixing Ratio:	Component A/B	1:1 by volume	
Viscosity:	Ad Mix	2350-2400 ps	
Pot Life:	ASTM C 881 Modified	Approx. 30 minutes @ 75°F (24°C)	
Tack-Free Time: (Thin Film)		40°F (4°C)**	75°F (24°C)**
** Ambient Temperatures		14 -16 hours	2 - 4 hours
			90°F (32°C)**
			1 - 1½ hours
NEAT BINDER			
Tensile Properties:			
Bond Strength, PSI (Mpa)	ASTM D-882		
2 Days (moist cure) Hardened concrete to hardened concrete or steel	1950 min (13)		
14 Days (moist cure) Plastic concrete to hardened concrete or steel	1780 min (12)		
Water Absorption 24 Hrs %	ASTM D-570	.5% maximum	
Heat Deflection Temperature 7 days	ASTM-D-648	100°F (38°C)	
EPOXY MORTAR 1 Part Mixed Epoxy to 1 Part loose aggregate by volume			
Compressive Strength, PSI (Mpa)		40°F (4°C)**	75°F (24°C)**
ASTM C-695	24 Hrs.	-----	4400 (30)
	3 days	2400 (6)	5800 (40)
	7 days	6500 (45)	6200 (43)
Compressive Modulus 14 Days PSI	1.2 x 10 ⁵		
Tensile Properties ASTM-D-638			
	14 Days Tensile Strength PSI (Mpa)	2400 (16)	
	Elongation at Break	35%	
	Modulus of Elasticity PSI (Mpa)	3.3 x 10 ⁵ (2275)	
Flexural Properties 14 Days			
	ASTM-D-790		
	Flexural Strength PSI(Mpa)	3200 (22)	
	Tangent Modulus of Elasticity PSI (Mpa)	5.6 x 10 ⁵ (3861)	

E-BOND 560 LO-MOD GEL EPOXY

SURFACE PREPARATION:

All surfaces must be structurally sound, clean and free of dust, oil, grease or any contaminant that would adversely affect the bond. Surfaces may be dry or damp, but free of standing water. Epoxy concretes and mortar generally bond very well to properly prepared concrete. It is essential that the surface to which the epoxy is to be applied be sound and clean. Dirt, oil, grease, laitance or other surface deposit can interfere with the bond of the epoxy to the substrate. It is necessary to determine the surface preparation requirements prior to the application of the epoxy.

Chain drags, hammer sounding, infrared thermography, radar, cores, ultra sound, and other evaluation methods may be used to determine the extent of the deteriorated concrete that must be removed and replaced. This evaluation should determine the presence of laitance, curing compound, patching compounds, sealers, etc., that must be removed.

Weak, delaminated areas should be removed using chipping hammers, scarifiers, scabblers, hydrodemolition, other techniques may be used especially where more extensive concrete removal is necessary. The method used to remove deteriorated concrete should not weaken or crack the surrounding sound concrete. A SAW CUT AROUND THE AREA TO BE REMOVED IS RECOMMENDED TO REDUCE EDGE SPALLING AND PROVIDE A SOUND SURFACE IN WHICH TO PLACE THE PATCHING MATERIAL.

Additional cleaning is necessary to remove any debris remaining after the removal of unsound concrete. Sandblasting, shotblasting, a scabber, grinding or high-pressure water jet can be used to clean surface contaminants from the deck before the epoxy is placed.

Oil-free compressed air may be used to remove any dust or debris immediately prior to the application of the epoxy.

STEEL: Sandblast to white metal finish.

MIXING:

Pre-mix each component separately. Place in a clean container, 1 part by volume of Component A (Resin) and then add 1 part of Component B (Hardener). Container should have a flat wall and flat bottom. Stir and mix until material is thoroughly blended. Mixing should be completed after 2 minutes of thorough blending.

The importance of thorough mixing and blending cannot be over emphasized. The two components must be thoroughly mixed and mated. If you are mixing correctly, bubbles will be whipped into the mixture. Do not be concerned; this is a sign that you are mixing well. Improper mixing can result in soft or sticky spots.

It is recommended, to eliminate problems of improper mixing, that you use two mixing containers. Mix thoroughly in one container. After you feel it is thoroughly mixed, scrape all the material from one container to the second container. After material has been placed in the second clean container, thoroughly mix for an additional 1 to 1½ minutes.

With this double type of mixing, any material that might not have been thoroughly mixed from the sides or the bottom of the first container will be easily placed in the second container and thus will receive thorough mixing at that time. Mix only that quantity that can be used within its working time.

APPLICATION:

Use E-BOND 560 Superstick Gel as a neat binder or as a mortar.

To prepare an epoxy mortar add from 1 to 1½ parts by loose volume of 20/30 sieve, salt-free, kiln-dried aggregate to 1 volume of the mixed Low-Mod Gel, mix until uniform in consistency. Amount can be varied depending on desired consistency. Place the prepared mortar into the void, working the material into the prepared substrate filling cavities. Strike off level. It is recommended not to apply epoxy mortar at a thickness greater than 1½ inches per lift.

For a Structural Adhesive - Apply the neat mixed E-BOND 560 GEL to mating or non-mating prepared substrates. Thoroughly work into the substrate for positive adhesion. Secure the bonded unit firmly into place until the adhesive has cured. Glue line should not exceed ¼ of an inch.

To Anchor Bolts, Dowels, and Pins - E-BOND 560 may be used neat, or with larger bolts add approximately 1 to 1½ parts of 20/30 sieve, salt-free, kiln-dried aggregate to 1 volume of mixed E-BOND 560.

FOR OVERHEAD AND VERTICAL APPLICATIONS: Add approximately 1 to 2 parts of a 325 mesh silica flour, salt free, kiln dried. Slowly add to the properly mixed E-Bond 560 until a workable consistency is obtained. This provides a putty-like consistency that works ideally in overhead and vertical applications.

PRIMING: SUPERSTICK #560 is an epoxy gel that will bond to a properly prepared surface. If the surface appears to be porous, a primer should be considered. E-BOND 520 LO-MOD LOW VISCOSITY or E-BOND 540 LOWMOD SUPERSTICK should be used.

Do Not Thin E-BOND 560 LOW-MOD GEL - Solvents will prevent proper cure.

Note - For bonding fresh plastic portland cement to hardened concrete, use E-BOND 580 HI-MOD.

COVERAGE: 1 Gallon of E-Bond #560 LOW-MOD yields 231 cubic inches of epoxy adhesive. When mixed with 1 gallon of dry loose aggregate the yield will be approximately 350 cubic inches of epoxy mortar.

PACKAGING: Available in 2 gallon units.
Available in larger units on request.

CLEAN UP:

Clean all equipment and tools prior to initial set up of the epoxy system. A lacquer solvent or xylene can be used for this purpose. (Lacquer solvents and xylene are highly flammable, use caution as required by the manufacturer of these solvents.) Mortar mixers and tools often can be cleaned up with hot water and soap prior to the epoxy becoming tacky.

GUIDE FOR USE OF E-BOND 560 AT VARIOUS SUBSTRATE TEMPERATURES

NOTE: For best performance epoxy product and aggregate temperature should be a minimum of 75° F (24° C).
Product and aggregate temperature of 75° F (24° C) was used for the following guide.

<u>TEMP. RANGE °F.</u>	<u>MAX. TIME ALLOWED BETWEEN MIXING & APPLICATION</u>	<u>MAX. TIME ALLOWED BETWEEN APPLICATION & BROADCAST</u>	<u>TIME TO OPEN BETWEEN TO LIGHT TRAFFIC</u>
90° (32° C)	8 Minutes	10 Minutes	3-4 Hrs.
80° (27° C)	10 Minutes	15 Minutes	4-5 Hrs.
75° (24° C)	12 Minutes	20 Minutes	5-6 Hrs.
70° (21° C)	13 Minutes	20 Minutes	5-6 Hrs.
65° (18° C)	15 Minutes	30 Minutes	6-8 Hrs.
60° (15° C)	20 Minutes	30 Minutes	10-15 Hrs.
55° (13° C)	25 Minutes	40 Minutes	24+ Hrs.
50° (10° C)	25 Minutes	50 Minutes	24+ Hrs.

CAUTION - For professional use only; not for sale to or use by the general public. E-Bond's epoxies contain alkaline amines. Strong sensitizer; MAY CAUSE SKIN SENSITIZATION or allergic response ranging from a mild wheezing to a severe asthmatic type attack. Avoid contact with skin or eyes. IN CASE OF CONTACT immediately wash skin with soap and water. Flush eyes with water and obtain medical attention. Wear protective clothing, goggles, and barrier cream on all exposed skin.

LIMITED WARRANTY NOTICE: E-BOND EPOXIES, INC warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within the shelf life of one (1) year from manufacture date. Satisfactory results depend not only on quality products but also upon many factors beyond our control. The purchaser must examine the product when received and promptly notify E-BOND EPOXIES, INC in writing of any nonconformity before the product is used and no later than 30 days after such non-conformity is first discovered. If E-BOND, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty.

The information in this data sheet supersedes all other sales information received by the customer during the sales process. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.

E-BOND shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, its obligations under any contract for sale of product, even if E-BOND could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this contract, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.



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