



MASONS SUPPLY COMPANY

OREGON • WASHINGTON

MASCOBOND LO-MOD

DESCRIPTION

MASCOBOND LO-MOD is a 100% solids, two component moisture insensitive, low modulus, low viscosity, epoxy resin binder adhesive system.

USES

- Broadcast binder for overlays on elevated slabs & bridges.
- Repair concrete floors in warehouses, loading docks, parking decks, ramps, and bridge decks.
- Blended with kiln dried sands for mortar patching of interior & exterior concrete subject to impact and thermal & mechanical movement.

FEATURES AND BENEFITS

- Easy 1 to 1 mixing ratio.
- Insensitive to moisture before and after cure.
- Unique low modulus of elasticity.
- High early strength gain.

PHYSICAL PROPERTIES

Type:	Moisture Insensitive & Low Temperature Cure Lo-Modulus Epoxy Low Viscosity	
Mixing Ratio:	1A to 1B by volume	
Color:	Part A Resin	Gray
	Part B Hardener	Amber
	Ad-Mix	Gray
Viscosity (ASTM C-881):	Approx. 1,700 cps	
Pot Life:	Approx. 15-30 min	
Tack Free Time @ 75°F*:	2-4 hrs	
Bond Strength (ASTM C-882):	1,600 psi	
Tensile Strength (ASTM D-638):	2,500 psi	
Elongation at Break (ASTM D-638):	48%	
Compressive Modulus (ASTM D-695):	1.0x10 ⁵	
Water Absorption (ASTM D-570):	0.27%	
Shrinkage (ASTM C-883):	Pass	
Thermal Compatibility (ASTM C-884):	Pass	

MORTAR (1:4)**

Compressive Strength (ASTM C-109 mod.) @ 75°F:	
3 hrs	1,100 psi
24 hrs	7,000 psi
48 hrs (moist cure)	7,250 psi

*Ambient Temperature

** Using MASCOBOND aggregate

SURFACE PREPARATION

Surface must be clean and sound. It may be dry or damp, but free of standing water. Remove dust, laitance, grease, curing compounds, impregnations, waxes, foreign particles, disintegrated materials. Preparation work: **Concrete** - Sandblast or use other approved mechanical methods. **Steel** - Sandblast to white-metal finish.

MIXING INSTRUCTIONS

Material must be conditioned at 70°F for at least 24 hours prior to application.

Binder: 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. MIX THOROUGHLY for 3 minutes with a paddle on a slow speed drill (400 or 600 rpm). Scrape the sides and bottom of bucket thoroughly while mixing. Mix only the amount that can be used within the working life of the product. The importance of thorough mix and blending cannot be over emphasized. The two components must be thoroughly mixed and mated. Improper mixing can result in soft or sticky spots.

Mortar: Mix Components A and B as above, then slowly add MASCOBOND AGGREGATE to pre-mix binder and mix to obtain a uniform consistency. Amount of aggregate may vary upon conditions. Recommended maximum aggregate is 4 volumes of aggregate to 1 volume of mixed binder.

APPLICATION TECHNIQUES

Broadcast Overlay: After proper surface preparation broom or use oil free compressed air to remove all dust and debris. Spread the properly mixed MASCOBOND LO-MOD on the surface using squeegees at the rate of 40 to 50 sq. ft. per gallon. A pre-marked area will serve as a guide to obtain the recommended coverage. Allow materials to level. At temperatures above 70°F materials should level immediately. At cooler temperatures a waiting period will be required. Broadcast aggregate, while epoxy is still wet and tacky, in such a manner as to permit the aggregate to fall vertically into the wet epoxy. Aggregate should be broadcast UNIFORMLY to completely cover the epoxy surface. No wet spots should be visible. Apply a slight excess amount. Aggregate is usually broadcast at the rate of 1 to 1-1/2 lbs. per sq. ft. After initial set of the epoxy EXCESS AGGREGATE MUST BE REMOVED. Brooming or a high powered vacuum is recommended. For TOUGH INDUSTRIAL AREAS a second coat is recommended. Apply SECOND APPLICATION of mixed MASCOBOND LO-MOD at the rate of 30 sq. ft. per gallon. Broadcast at the rate of 1 1/2 - 1 3/4 lbs. per sq. ft. Aggregate should be angular grain silica minimum MOH hardness of 7, washed, kiln dried and free of dirt, clay, asphalt and other organic materials. For TOUGH INDUSTRIAL applications consider emery aggregate with a high % of aluminum oxide.

Mortar: Prime surface with premixed neat MASCOBOND LO-MOD. Apply with stiff brush and work into surface. Apply epoxy mortar while epoxy is still tacky (usually within 15 minutes 75°F). Finish with screed and steel trowel. Wipe trowel lightly with a damp rag with solvent or water for a smooth finish.

COVERAGE

Primer: for epoxy mortar apply at the rate of 75-100 square feet per gallon. **Mortar:** 2/3 gal of MASCOBOND LO-MOD when mixed with 1 bag MASCOBOND AGGREGATE (40 lbs) will yield approximately .40 cubic foot. 1 gallon of MASCOBOND LO-MOD when mixed with 4 gallons by volume (60 lbs) of MASCOBOND AGGREGATE will yield approximately .60 cubic foot. **Broadcast binder:** 1st coat 40 to 50 sq ft per gallon per coat approximately, 2nd coat (optional) 30 sq ft per gallon.

COMPLIANCES

MASCOBOND LO-MOD conforms to ASTM C-881-90 Type III, Grade 1 Class B & C and AASHTO M-235 for epoxy resin systems.

TEMPERATURES

Will cure at temperatures as low as 40°F, providing the temperature will be 40°F and rising during the next 72 hours. Epoxy materials and aggregate should be stored at least 24 hours prior to use at 70°F, or higher. Epoxies stored below 60°F will cause the epoxy to thicken substantially, making it difficult to properly blend the two materials and obtain a proper mating of resin and hardener. PROTECT FROM INCREMENT WEATHER AND FREEZING. If product temperature falls below 50°F, it is recommended that a product temperature of 70°F be obtained prior to using.

CAUTIONS

Minimum application temperature 40°F. Minimum age of concrete must be 21-28 days depending on curing and drying conditions. Test for moisture vapor transmission prior to application. Moisture passing through the substrate by pressure during the application and after curing of epoxy will cause bond failures. Material is a vapor barrier after cure. For application on exterior, on-grade substrates, consult Technical Service. For spray application, consult Technical Service. Do not thin with solvent. Solvent will prevent proper cure. Use only oven dry aggregate. Epoxy mortar is for interior use only. For multiple lifts consult Technical Services. Ultraviolet light can discolor MASCOBOND LO-MOD. Not for injection of cracks under hydrostatic pressure. Do not inject cracks greater than 1/4 in. without consulting Technical Service. Due to many variables in bonding to damp surfaces, be certain to test application under the same conditions as the full-scale work.

PACKAGING

1/2 gallon and 2 gallon units. Available in larger units upon request.

Storage: 60-85°F

Protect from freezing.

Shelf Life: 1 year, unopened, protected storage.

Freight Class: Class 60

DOT/UN Shipping Name: Polyamines, Liquid, Corrosive, NOS (Alkaline Amine)

DOT Hazard Class: Class 8 (Corrosive Liquid), PGIII

Other Requirements: UN 1760

HAZARDS IDENTIFICATION

Component "A": Vapors from product may cause irritation to the nose, throat, and respiratory tract. Coughing and chest pains may result. High vapor concentrations may produce CNS depression. Product may cause severe eye irritation. Skin contact with product may cause irritation, redness, and discomfort which is transient. Product may be slightly toxic if ingested. Repeated exposure may cause skin sensitization, skin irritation, and dermatitis. Preexisting eye, skin, and respiratory disorders may be aggravated by exposure of this product.

Component "B": Vapors/mist may be corrosive to upper respiratory tract. Repeated or prolonged exposure can result in lung damage. Lung damage may be evidenced by shortness of breath and may be accompanied by chronic cough. Product may cause irritation to the eyes. Corrosive to eyes and may cause severe damage including blindness. Corrosive to the skin; may cause skin sensitization. Ingestion may cause permanent

damage to the mouth, throat, and stomach. Repeated exposure may cause skin sensitization or sensitization to the respiratory tract and development of an asthmatic reaction to future exposure. Preexisting eye, skin, and respiratory disorders may be aggravated by exposure of this product.

FIRST AID

For inhalation, remove victim from exposure. If victim has difficulty breathing, administer oxygen. If breathing has stopped, administer artificial respiration. Seek medical attention. For eye contact, flush eyes with water for 15 minutes, lifting upper and lower lids occasionally. Seek medical attention. For skin contact, immediately remove contaminated clothing. Wash thoroughly with soap and water for at least 15 minutes. If irritation occurs, get medical attention. Do not reuse clothing until thoroughly cleaned. For ingestion, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Seek medical attention.

CLEANUP INSTRUCTIONS

Ventilate area. Confine spill. Collect with absorbent material, flush area with water. Dispose of in accordance with current applicable local, state and federal regulations. Uncured material can be removed with an approved solvent. Cured material can only be removed mechanically.

TECHNICAL SERVICE

For Technical Service on all Masons Supply products contact:

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