

HUDCO Industrial Products, Inc.

Adhesives

Epoxy Adhesive for Underwater and Wet Surfaces

HUDCO Formula 3200

HUDCO Formula 3200 is a high strength structural adhesive / coating system with the unique ability to displace water and bond to wet or underwater surfaces. It is a 100% solids, plural component system, which when mixed in the ratio of 1 part resin to 1 part curing agent by weight or volume, yields a smooth non-sagging paste. HUDCO Formula 3200 creates a strong trowelable mortar when mixed with an equal volume of dry sand and exceeds the requirements of ASTM-C881, Type III, Grade 3, Class B and C.

Typical Applications

- May be applied underwater or to wet surfaces as well as dry.
- Repairs/Bonds wet concrete.
- High Strength Structural Bonds.
- Smooth Paste with no Vertical or Over-head sagging.
- Exceptional chemical resistance
- Non-Shrinkable Protective linear Repair for pipes or equipment containing sewage or other water-borne materials.

Physical Properties

Initial Curing Time	2-3 Hours @ 70° F
Final Curing Time	3 Days @ 70° F
Pot Life	45 Min. @ 70° F
Viscosity	"Vaseline" Paste
Lap Shear Strength: (min) Steel to Steel (ASTM-D 1002) Steel to Steel (ASTM-D 1002)	3150 PSI @ 70° F 2750 PSI @ 160° F
Slant Shear Strength: Concrete (ASTM-C882), 7 days cure min	3000 PSI
Volatile content cured system. max	0.8%
Water absorption (ASTM-D570) max	0.15%
Shrinkage during cure (ASTM-C883)	Passes
Tensile Strength (ASTM-D638), min	2400 PSI
Tensile Elongation (ASTM-D638), min	12%
Compressive Strength (ASTM-D695) HUDCO 3200 + dry sand (1:1)	12,000 PSI

Packaging

Kit	Resin	Curing Agent	Kit Weight
2 Quarts	2 lbs.	2 lbs.	4 lbs.
2 Gallons	9.5 lbs.	9.5 lbs.	19 lbs.



This reference guide is not intended as a substitute for the product label for the products referenced herein. Product labels for the above products contain important precautions, directions for use and product warranty and liability limitations that must be read before using the product. Applicators must be in possession of the product label(s) at the time of application. Always read and follow all label directions and precautions.

Application Instructions

Surface Preparation:

Concrete

- (A) Concrete substrates must be clean and sound. Remove all grease and oil with a degreasing solvent or strong industrial detergent prior to application.
- (B) Remove scale, chipped or weak concrete.
- (C) Acid etching the surface is acceptable if followed by thorough flushing with clean water.
- (D) Apply to wet or dry surface.

Steel

- (A) Remove grease and oil with a suitable detergent or film-free solvent.
- (B) Remove any loose surface contamination.
- (C) Sandblast or roughen with heavy grit sanding paper creating a “cross-hatch” pattern.

Mixing: Combine one part of HUDCO Formula 3200 Epoxy Adhesive resin with one part of HUDCO Formula 3200 Epoxy Adhesive curing agent by weight or by volume. Mix thoroughly for several minutes making sure all the resin is blended with the entire curing agent. Accurate measuring and mixing are vital to complete curing and optimum performance.

Application: Apply product to prepared surface and use supplied tools to achieve desired finish.

Curing: Initial cure will occur in 2-3 Hours. Final cure occurs in 3 days.

Safety Precautions

CAUTION: For Industrial Use Only. Keep Away From Children.

HUDCO Formula 3200 Resin contains epoxy resin which is harmful if swallowed. After prolonged exposure it may irritate skin and cause sensitization and/or dermatitis.

HUDCO Formula 3200 Curing Agent contains organic amine compounds which are harmful if swallowed. After prolonged exposure or repeated skin contact it may cause irritation, sensitization and/or dermatitis.

Emergency and First Aid Procedures

- Eye Contact - Irrigate with clean water for 15 minutes and call a physician.
- Skin Contact - Wash with soap and water.
- Inhalation - Remove to fresh air and provide oxygen if necessary.
- Ingestion - Call a physician at once. Give milk or white of egg beaten with water. Then give a teaspoon of salt in a glass of warm water to induce vomiting.

Protection Procedures

If used in a confined or an enclosed area, use an air supplied mask or respirator with canister for organic vapors and provide mechanical exhaust ventilation. Use protective gloves, safety glasses, and protective clothing. Avoid contact with skin and clothing. Contaminated clothing should be laundered before wearing again. Contaminated shoes should be thoroughly cleaned before wearing again.

Storage

HUDCO Formula 3200 Resin and Curing Agent should be stored in a cool, dry area. Shelf life is a minimum of one year in unopened containers when stored at 70° F – 85° F.

Warranty

Because the storage, handling and application of these materials are beyond our control, we can accept no liability for the results of their use. Our liability is limited only to replacement of any material proven defective in manufacture. We suggest users try small applications to determine the suitability of the product for their intended use.

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