

## TECHNICAL DATA SHEET

### DESCRIPTION

Underwater Substructure Epoxy is a solvent free, moisture insensitive, 100% solids, low modulus, two component bonding agent commonly used in substructure waterproofing. It meets ASTM-C-881 Type III, Grade 1, Classes B & C.

### USE

Underwater Substructure Epoxy provides a flexible, moisture insensitive membrane to prevent water penetrating the surface of submerged structures. Applied to dry substrates before submersion, the epoxy membrane protects common super structures such as precast elements and bridge supports from water and chloride intrusion.

### FEATURES

- Meets ASTM C881, Type III, Grade 1, Classes B&C
- Meets AASHTO-AGC-ARTBA
- Meets Kansas DOT SS 1709 Substructure Waterproofing
- Excellent Bond Strength
- High Early Strength
- Easy to Mix 1:1 Ratio
- Moisture Insensitive
- Non-Flammable

### PROPERTIES

Meets Specification:  
 ASTM C-881, Type III, Grade 1, Classes B & C  
 Mix ratio – 1:1, by volume  
 Gel time – ASTM C881  
 60 gm sample @ 73°F (23°C): 15 min.  
 Color (mixed) - Dark Amber  
 Viscosity – 1,500 cps  
 Final Cure-7 days  
 Compressive Modulus – ASTM D-695  
 80,000 psi (551.6 MPa)  
 Bond Strength – ASTM C-882  
 14 days 3,200 psi (22.1 MPa)  
 Tensile Strength - ASTM D-638: 3000 psi (20.7 MPa)  
 Elongation at Break – ASTM D-638: 50.0%  
 Water Absorption – ASTM D-570: 0.20%  
 Thermal Compatibility – Passes Test  
 AASHTO T-222Chloride Ion Permeability 0.9  
 Coulombs

### VOC

Underwater Substructure Epoxy has a VOC content of 0 g/L and is compliant with all Canadian and U.S. VOC regulations including Federal EPA, OTC, LADCO, SCAQMD & CARB.

### Estimating Guide

To apply Underwater Substructure Epoxy at a dry film thickness of approximately 40 mils (40 sq. ft./gal. .98 sq. M/L)

### Packaging

PRODUCT CODE	PACKAGE	KIT SIZE	
		Gallons	Liters
140344	Pails	10	37.85
101820	Totes	500	1,893

### STORAGE

The material should be stored between 40°-95°F (5°-35°C).  
 Shelf life of properly stored, unopened containers is 24 months

### Surface Preparation:

Surface to be bonded must be clean and sound. Remove oil, dirt, grease, laitance, curing compounds and other foreign matter that may cause a problem with bond. Abrasive blast cleaning and mechanical removal methods are recommended. Remove all standing water and dust with clean, oil free, compressed air prior to installation.

### Mixing

Condition material to 65°-85°F (18°-29°C) for ease of mixing and optimum flow prior to using. Premix each component then place 1 part by volume of Component A and 1 part by volume of component B into a clean pail and mix for three minutes with a low speed drill using a Jiffy mixer or paddle until uniformly blended. Mix only what can be used within the pot life

### Placement:

Apply neat resin by roller. Allow the system to cure 2.5 hrs for course first application and 4 hrs subsequent applications @ 70°F (22°C)].  
 Colder temperatures will slow the setting time while warmer temperatures will accelerate the set time as follows:  
 @ 60°-65°F (16-18°C) set time would be 4 hrs for first application and 6-5 hrs for a second applications  
 @ 80°-84°F (27-29°C) set time would be 1.5 hrs for first application and 3 hrs for a second applications

## TECHNICAL DATA SHEET

NOTE: Surface and ambient temperature must be a minimum of 40°F and rising.

### CLEAN UP

Tools and Equipment: Clean before the epoxy sets up using Xylene or Unitex Citrus Cleaner.

### LIMITATIONS

#### FOR PROFESSIONAL USE ONLY

Minimum age of concrete must be 21-28 days from date of placement depending on curing and drying conditions. Always test a small amount of Underwater Substructure Epoxy to ensure that the product is mixed properly and thoroughly and that the material will harden properly before proceeding with the installation.

Note: High temperatures will accelerate the setting time. As a general rule, the gel time of the epoxy will be cut in half for each 10° to 15° increase in temperature above 75°F (24°C).

### PRECAUTIONS

#### READ SDS PRIOR TO USING PRODUCT

- READ SDS PRIOR TO USING PRODUCT
- Component A – Irritant
- Component B – Irritant
- Use with adequate ventilation
- Wear protective clothing, gloves and eye protection (Goggles, Safety Glasses and/or Face Shield)
- Keep out of the reach of children
- Do not take internally
- In case of ingestion, seek medical help immediately
- May cause skin irritation upon contact, especially prolonged or repeated.
- If skin contact occurs, wash immediately with soap and water and seek medical help as needed
- If eye contact occurs, flush immediately with clean water and seek medical help as needed
- Dispose of waste material in accordance with federal, state and local requirements
- Cured Epoxy Resins are Innocuous

### MANUFACTURER

Dayton Superior Corporation  
1125 Byers Road  
Miamisburg, OH 45342  
Customer Service: 888-977-9600  
Technical Services: 877-266-7732  
Website: [www.daytonsuperior.com](http://www.daytonsuperior.com)

### WARRANTY

Dayton Superior Corporation ("Dayton") warrants for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Dayton, the product is free of manufacturing defects and conforms to Dayton's product properties in force on the date of acceptance by Dayton of the order. Dayton shall only be liable under this warranty if the product has been applied, used, and stored in accordance with Dayton's instructions, especially surface preparation and installation, in force on the date of acceptance by Dayton of the order. The purchaser must examine the product when received and promptly notify Dayton in writing of any non-conformity before the product is used and no later than 30 days after such non-conformity is first discovered. If Dayton, 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. Only a Dayton officer is authorized to modify 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.

Dayton 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 Dayton 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.