

Technical Data Sheet (TDS)

Product Description

EpoPutty S8188 UW is a versatile two-component epoxy-based compound when mixed thoroughly produces a Putty that will not sag, run or drip.

EpoPutty S8188 UW adheres to most surfaces like concrete, brick, metal, plastics, wood, fiberglass, painted surfaces. Can be applied on wet surfaces and underwater. Sets in 30 minutes. Allow 2.5 hours for full cure. When cured it can be drilled, filed, machined and painted over.

Product features:

- 100% solids water displaceable compound
- Direct application to concrete or steel substrate
- Can be directly applied onto submerged, wet surfaces and surfaces above water.
- Cures underwater and can be applied underwater
- Can repair, bond, fill and seal Concrete and Brick, Metals, Plastics, Wood, Fiber Glass and Composite laminates
- Excellent adhesion
- Surface Tolerant and Rust Tolerant
- Non-Flammable and High Build application
- Cures to a matt finish
- Tough, impermeable waterproof upon full cure
- Flexible film has good reverse impact resistance
- No shrinkage after cure and can be painted over

Intended Uses

EpoPutty S8188 UW is suited for use as a repair compound/adhesive for Hulls, Jetty Piles/Piers and Offshore marine structures. It is eco-friendly and safe for marine life when applied underwater

Mix Ratio

1 part by weight of Base A [**SKUEpoPA**]
 1 part by weight of Hardener B [**SKUEpoPB**]
 Material is supplied in sealed sticks. It is strongly recommended to measure the sticks and cut equal parts as required

The recommended mixing temperature is between 20 to 25°C (68-77°F). Base temperature exceeding 30°C (86°F) during mixing may reduce pot life.

Product Characteristics

Finish:	Matt
Colour:	Light Grey
Consistency: Mixed	Paste
Consistency: Base (Part A)	Paste
Colour:	Grey
Consistency: Hardener(Part B)	Paste
Viscosity: cP @ 25° C Base	App. 5,000 JIS Z 8803
Viscosity: cP @ 25° C Hardener	App. 5,000 JIS Z 8803
Weight Solids Mixed: (Typical) SKUEpoPA: SKUEpoPB (1:1)	98 ±2% ISO 3233:1998
Pot Life: 25°C (77°F) *	45 to 60 Minutes
<i>Note: Pot life is reduced when environment temperature increases</i>	
VOC Mixed (Unreduced): EPA Method 24 SKUEpoPA: SKUEpoPB (1:1)	No VOC's
Shelf Life:	
Component A	1 year
Component B	1 years
<i>Note: For unopened product (25°C (77°F)) stored in well-ventilated closed storage area not exposed to direct sunlight and heat source</i>	

Surface Preparation

For best/optimum product performance DAB to ISO 8501-1 Sa 2, SSPC SP-6, Swedish Standard Sa 2 SIS 05 5900 or WJ-2 UHP Hydro blasting or Power Tool cleaning to SSPC-SP-11.

EpoPutty S8188 UW is both Rust tolerant and Wet tolerant and can be applied directly onto to submerged substrates. When recommended surface preparation standards cannot be achieved due to prevailing environmental conditions or operational constraints, a minimum of DAB to ISO 8501-1 Sa 1 or NACE WJ-3 Hydro-Blasting or Power Tooling to SSPC-SP-3 can be accepted as **EpoPutty S8188 UW** would offer the best possible performance under prevailing compromised substrate conditions. It is strongly recommended that a Chemcote Speciality Coatings Authorized Technical Representative is consulted to evaluate on site compromised substrate conditions to both manage expectations and optimize/validate product performance.

Technical Data Sheet (TDS)

Foul Resistance

EpoPutty S8188 UW is a 2-part epoxy coating and has moderate Foul Resistance

NOTE: if Foul Resistance is a concern, we recommend overcoating **EpoPutty S8188 UW** with **EpoFRCu S8188 UW**

Performance Characteristics

Adhesion Pull Test (Cold rolled and Cured in Sea Water)	ASTM D4541 Units in Psig Blasted 2mil
Dry Substrate	>2,500
Wet Substrate	>1,750

Elasticity & Strength	Standard Unit
Elasticity Modulus	9800 MPa ISO R 527
Compressive Strength	103 MPa ISO -844
Flexural Strength	64 MPa ISO 178
Flexibility Mandrel bend	No defects -- ½ inch Mandrel 180 ASTM D522
Tensile Shear Strength	>80 kgf/cm2 JIS K 6850
Hardness, Shore D 24hr	>70 JIS K 7215

Exposure	Standard Result
Salt Spray Resistance	No defects -2000 Hrs. ASTM B117
Humidity Resistance	No Defects ASTM D1654
Exterior Exposure	No Chalking- 2 years ASTM D659

Film Thickness

EpoBar S8188 UW has a recommended film build thickness of:

Submerged substrates	Unlimited	Unlimited
Exposed substrates	Unlimited	Unlimited

Drying Information

Normal Version SKU EpoP A/B	10°C (50°F)	15°C (59°F)	25°C (77°F)
Touch Dry [ISO 9117/3:2010]	6 Hours	2 Hours	30 minutes
Hard Dry [ISO 9117- 1:2009]	24 Hours		<5hrs
Pot Life	No Data	90 minutes	60 minutes

Rapid Cure Version SKU 299B	10°C (50°F)	15°C (59°F)	25°C (77°F)
Touch Dry [ISO 9117/3:2010]	NA	NA	NA
Hard Dry [ISO 9117- 1:2009]	NA	NA	NA
Pot Life	NA	NA	NA

Note: Dry Times are subject to ambient temperature. With the use of a special catalyst, the Rapid Cure version of SKU 299B shortens touch dry times dramatically. For ambient temperatures exceeding 35°C please consult Royal Coatings Inc. authorized Technical Representative to manage pot life and curing times.

Technical Data Sheet (TDS)

Product Characteristics

Consistency	Spreadable Paste
Finish	Semi-Gloss
Colours	White, Grey shades
Volume Solids	97 ± 3%
Weight Solids	98 ± 2%
SG of Mix	1.7 – 1.9
Pot Life @ 25° C	30 to 40 minutes
Pot Life @ 35° C	15 to 20 minutes

Mixing

Cut equal lengths of EpoPutty resin base Part A and EpoPutty Hardener Part B. Note that the length of the “dough stick” will depend on the size of repair area. Note also that entire length of EpoPutty Part A and Part B that comes in a kit can also be used. Knead Part A (Grey) with Part B (Off White) until a uniform Light Grey dough/paste is obtained. This should take about 3 minutes. Start applying repair paste over area to be repaired. The mixed repair paste should be applied within 30 minutes of mixing.

Environmental Conditions

For optimum product performance, product, substrate and ambient temperature should be between 68°F-77°F (20°C-25°C). Condensation during application is not an issue as the product can be applied on to submerged and wet substrates

Recommended Systems

Exposed Substrates	No. of Coats	Total DFT microns
	2 coats	500

Submerged substrates	No. of Coats	Total DFT microns
	2 coats	1000

Version Date: July 28, 2022

The systems recommended above are intended guidelines for product use. User shall determine actual coating layers and coating thickness to be used at site, based on existing substrate condition and extent of repair area.

Over Coat Intervals

Overcoated by	10°C		15°C		25°C	
	Min	Max	Min	Max	Min	Max
EpoFRCu S8188 UW on itself	Wet on Wet	No Limit	Wet on Wet	No Limit	Wet on wet	No limit

Precautions

- 1) Do not apply under direct sunlight
- 2) Do not apply if ambient temperature is below 5° C
- 3) Do not coat over any existing expansion joints

Packaging

Packed in Standard 0.25 kg “dough sticks” Part A and Part B of equal lengths. Each kit yields 0.5 kgs of product. MOQ 24 kits comprising Part A resin and Part B Hardener in a carton.

Storage

Store in well-ventilated sheltered area under cool and dry ambient conditions. Do not store products below 5° C or above 35° C

Shelf Life

Shelf life is 12 months in original sealed original packaging for ambient storage temperature between 15° C and 35° C. Shelf life will reduce at higher temperatures.