

#### Revised 04/2025 Issue 3

# PRODUCT DESCRIPTION

A solvent-free epoxy technology offering ultra fast return to service.

With superior flexibility, excellent edge retention, film forming and high build properties, this solvent-free epoxy product enables ultra fast return to service in as little as 24 hours.

- One coat protection
- Fast return to service
- Low VOC
- Low odour
- · Dry to walk-on within four hours
- · Designed for plural-component application equipment
- Greater than 70% edge retention
- · Low Temperature application and cure capabilities to 2°C (See application conditions)

## **RECOMMENDED USE**

Ballast tank interiors and oil storage tank interiors

- · Fuel storage tanks and external pipeline coating
- · Acceptable for use with cathodic protection systems
- Where rapid return to service and edge protection film build properties are required

• Meets MIL-PRF-23236 Type VII, Class 5, 7, 5/18, 7/18, 13/18, 17, 17/18 Grade C requirements for single and multi-coat seawater, fuel, bilges, and CHT tanks

# **PRODUCT TECHNICAL DATA**

Volume Solids: 98 ± 2 % Weight Solids: 98 ± 2 % VOC: < 250 g/l, mixed Colours: White, Blue OAP, Black, Haze Grey Flash Point: Base: 110°C, Hardener: 499°C Cleanser/Thinner: Cleanser/Thinner No.13 for cleaning. Do not thin Fast Clad ER. Pack Size: A two component material supplied in separate containers to be mixed prior to use (plural component application only): 20 litre (28 kg) units when mixed Weight will vary with colours and density. Mixing Ratio: 1 part base to 1 part additive by volume 100 parts base to 71.3 parts hardener by weight Density: 1.4 kg/l (may vary with colours) Shelf Life: 24 months from date of manufacture, stored in originally sealed containers in a cool and dry environment

**Recommended Application Methods:** Plural component application only

## **Typical Thickness:**

## Recommended Spreading Rate Per Coat

**FAST-CLAD™ ER** 

EPOXY TANK LINING

	Typical	Maximum
Dry	500 µm	1500 µm
Wet	500 µm	1500 µm
Theoretical Consumption*	0.700 kg/m² 0.500 l/m²	
Theoretical Coverage*	1.43 m²/kg 2.00 m²/l	

\*This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment.

Film thickness will vary depending on actual use and specification.

## Pot Life:

+ 25°C

7 min

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## **AVERAGE DRYING TIMES**

## For 500 µm Dry Film Thickness

	+ 5°C	+ 25°C	+ 40°C
To touch	6 hours	1 hour	35 min
To handle	12 hours	3 hours	55 min
To recoat (min)	6 hours	1 hour	35 min
To recoat (max)	14 days	14 days	14 days
Cure to	36 hours	24 hours	12 hours

## SURFACE PREPARATION

Ensure surfaces to be coated are clean, dry and free from all surface contamination such as oil, grease, dirt and corrosion products to achieve satisfactory adhesion.

**Steel surfaces** shall be blast-cleaned to Sa  $2\frac{1}{2}$  according to ISO 8501-1 (ISO 12944-4), using angular grit. Average surface profile Rz  $\geq$  75 microns.

# MIXING

#### Plural Component Equipment to be used !

#### For stripe coating and repair work only:

Mix contents of each component thoroughly using low speed power agitation. Make certain no pigment remains on the bottom or the sides of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation.

To ensure that no unmixed material remains on the sides or bottom of the cans after mixing, visually observe the container by pouring the material into a separate container.

# **APPLICATION CONDITIONS**

Temperature air & surface: 5°C minimum\*, 43°C maximum \*For application at 2°C to 4.5°C, specific guidelines are required as follows:

• Air & Surface temperature conditions must be expected to remain stable or improve for a period of four hours.

• Environmental controls (dehumidication, heating, forced-air ventilation) are recommended to maintain acceptable application conditions.

• Final cure must be confirmed in accordance with ASTM D5402, "Assessing the Solvent Resistance of Organic Coatings Using Solvent Rubs". Test shall consist of 50 double rubs with MEK. Test shall confirm

no loss of DFT, and no coating residue on rubbing cloth.

The material should be 29°C-54°C (vary as needed) at the mixing block for optimal atomization based on tip size and pump pressure.

Do not heat above 60°C. Relative humidity: 85% maximum

# **APPLICATION EQUIPMENT**

FAST-CLAD<sup>™</sup> ER

EPOXY TANK LINING

The following is a guide.

Changes in pressures and tip sizes may be needed for satisfactory application characteristics. Always purge spray equipment before use with listed cleaner.

Remove and solvent clean tip housing every 20-30 minutes.

#### **Plural Component Equipment**

l Init-	
Offit.	Graco Extreme Mix / XM / XP or similar
Pressure min.	275 bar (4000 psi)
Spray hoses:	Ø ¾ inch (10 mm)
Tip Size:	0.53 – 0.64 mm (0.021 – 0.025 inch)
Pump heater setting:	21°C - 27° C
Material temperature	e at gun tip: 29°C - 54°C (vary as needed)

#### Brush and Roller

For stripe coating and repair only.

## **RECOMMENDED SYSTEMS**

Steel 1 x 500 µm Fast Clad ER

NOTE: Fast Clad ER may be applied at alternate thicknesses, up to 1500  $\mu$ m, depending on application conditions.

# **ADDITIONAL NOTES**

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross-coat spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

Do not mix previously catalyzed material with new.

Blue OAP contains fluorescent pigment.

Guidance on techniques and required equipment to inspect a coating system incorporating Opti-Check OAP Technology can be found in SSPC-TU 11.

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# FAST-CLAD<sup>TM</sup> ER EPOXY TANK LINING

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# **HEALTH & SAFETY**

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

# WARRANTY

Whilst all statements made about our products (whether in this data sheet or otherwise) are correct and accurate to the best of our knowledge, we have no control over the quality or the condition of the substrate, the application conditions or the many other factors affecting your use and application of our product.

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