

Fusion 90

Technical Data Sheet (TDS)

Product Description

Fusion 90 is an iso-free, two-component polysiloxane coating providing a high gloss surface finish.

Product features:

- High gloss
- Wide application window, cures down to 0°C
- Excellent adhesion and chemical resistance
- Excellent UV resistance
- Resists high humidity and moisture.
- VOC Compliant

Recommended Uses

Fusion 90 is intended for industrial applications, either new build or maintenance. It is suitable for application on all Endura primers and can be applied as a Direct-to-Metal topcoat or over a zinc primer where required. Fusion 90 is recommended as a protective, adhesive coat for new steel structures in severely corrosive atmospheric environments.

Industries:

- Oilfield & Energy Services
- Cranes and Construction Equipment
- Waste and Recycling Industry
- Trailers and Rolling Stock

Product Characteristics

Gloss: High: 90+ GU at 60°	
Slight gloss variations will occur depending on color.	
Volume Solids Mixed:(Unreduced) FEA0076:FEB0071 (1:1)	84% ± 4%
Volume solids will vary by color.	
Pot Life: (77°F (25°C) and 50% RH)	4-6 Hours
VOC Mixed (Unreduced): EPA Method 24 FEA0076:FEB0071 (1:1)	117 g/l 0.978 lb /gal
All colors are below 420 g/l (3.5 lb/gal). VOC content will vary with each color	
Shelf Life: For unopened product (77°F (25°C))	
Component A	3 years
Component B	2 years
For unopened product (77°F (25°C))	

Surface Preparation

Direct to Metal Application:

Surfaces must be free of all contaminants such as dust, oil, grease, and salt. It is recommended that all steel and other ferrous surfaces be sandblasted to a minimum of SSPC- SP6 or mechanically sanded with 80 grit sandpaper.

Application over a Primer:

Fusion 90 can be applied over all Endura primer sealers and primer surfacers without sanding during their topcoat window.

The topcoat window varies with each primer; see the relevant primer technical data sheet for the specific topcoat window data. If the primer topcoat window has been surpassed; the primer should be sanded with 240-280 grit sandpaper to achieve inter-coat adhesion. All sanding dust must be blown off prior to application of the topcoat.

Round off all rough welds and remove all weld spatter.

Mix Ratio

- 1 part by volume of component A **[FEAXXXX]**
(Part Number varies with color)
1 part by volume of component B **[FEB0071]**

The recommended temperature when mixed is 68-77°F (20-25°C).

Application Method

Fusion 90 can be applied using most spray-painting systems.

Ensure that any solvent absorbent primer surfacers are properly sealed with a primer sealer prior to application of the topcoat.

Solid Colors:

Apply one to two single wet coats to achieve recommended film thickness allowing up to 30 minutes flash time between coats.

Spray Gun Setup			
Feed Type	Fluid Tip	Application Pressures (heel of gun)	Fluid Delivery
Siphon Feed	1.6- 1.8 mm	40-50 psi	
Gravity Feed	1.3-1.4 mm	30-40 psi	
Pressure Feed	1.0-1.8 mm	55-65 psi	10-14 oz/min
Air Assist Airless	11-13 Thou	1,000-1,800 psi	
Airless	11-13 Thou	1,700-3,000 psi	

Suggested Viscosity Ranges Ford 4 Viscosity Cup at 68°F (20°C)	
Airless	47 - 60 secs
Air Assist Airless	45 - 48 secs
Conventional	44 - 47 secs

Spraying viscosity and thinning will depend on ambient conditions, spray equipment used, and the desired surface finish.

Recommended spraying viscosity is achieved by reducing with one of the following Endura Low VOC Epoxy reducers up to 35% by volume.

The following reducers will maintain VOC compliance.

- [FTH0016] Low VOC Epoxy Reducer – Regular
- [FTH0027] Low VOC Epoxy Reducer - Slow

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Film Build

Fusion 90 recommended film thickness:

Direct to metal Application:		
Wet: WFT Unreduced	5.0 – 8.5 mils	125 – 216 microns
Dry: DFT	4.0 – 7.0 mils	100 – 175 microns

Application over Primer :		
Wet: WFT Unreduced	2.5 – 5.0 mils	65 – 125microns
Dry: DFT	2.0 – 4.0 mils	50 – 100 microns

With poor hiding colors film build may be higher

Theoretical coverage at 1.0 mil (25 microns). Average DFT: 1350 ft² per gallon at 100% transfer efficiency

Dry Times

	68°F(20°C)	86°F(30°C)	104°F(40°C)
Dust Free	2 Hours	90 Minutes	60 Minutes
Full Cure	7 Days		

Dry Times are subject to ambient conditions (temperature and humidity) and good airflow and film build of the topcoat.

For best results surface temperature must be 86°F (30°C) or less before topcoating. Maximum re-coat window without sanding is 18 hours at 68°F (20°C). Mechanical sanding with 320-400 grit sandpaper before recoating is recommended after exceeding the recoat window.

Ensure that no more than three coats of paint are applied in a 12-hour shift. This includes primer, mid-coat, topcoats and clear coat. If more than 3 coats have been applied wait 10-12 hours to allow for proper solvent evaporation.

For questions about scheduling please contact your Endura Representative.

Clean Up

Clean all equipment immediately after use with Endura High Strength Gun Wash, or Endura EX-2C thinner.

Follow manufacturer's safety recommendations when using any solvent.

Ordering Information (sizing)

Product lead times may apply.

Please contact your Endura Representative for further information regarding stock availability and lead times.

Component A part numbers vary by color.

Fusion 90		2 mixed gallons (7.56l)
Comp A	FEAXXXX-030	1 gallon (3.78l)
Comp B	FEB0071-030	1 gallon (3.78l)

Fusion 90		10 mixed gallons (37.8l)
Comp A	FEAXXXX-050	5 gallons (18.9l)
Comp B	FEB0071-050	5 gallons (18.9l)

Other custom sizes may be available.

Environmental Conditions

For optimum coating performance product, substrate and ambient temperature should be between 68°F-77°F (20°C-25°C). To prevent condensation during application the surface temperature must be 5°F (3°C) or more above the dew point at all times.

For use outside this range please contact your Endura Representative.

Specifications

Hardness	ASTM D3363	H
Solvent Resistance	ASTM D4752	100 MEK Rubs; No failure
Impact resistance	ASTM D2794	20 in. lbs; NO failure
Abrasion Resistance (1000 cycles CS-17)	ASTM D4060	59 mg loss
Flexibility	ASTM D522	½" mandrel bend: NO failure
Service Temp	-40°F to 200°F	-40°C to 93°C

Safety Precautions

Please refer to all Safety Data Sheets (SDS) before using this product. SDS sheets can be found on our website at www.endurapaint.com