

UltraFlex Topcoat

Technical Data Sheet (TDS)

Product Description

Endura UltraFlex is a two component highly cross-linked, high performance polyester polyurethane coating providing exceptional flexibility.

Product features:

- Exceptional flexibility
- Outstanding chemical resistance
- Outstanding abrasion resistance
- Outstanding impact resistance
- Adds extra protection against mechanical damage
- High Gloss
- A library of over 40,000 colors

Recommended Uses

Endura UltraFlex Topcoat is intended for industrial applications; either new build or maintenance. UltraFlex Topcoat is suitable for application on all Endura primers.

Industries:

- Oilfield & Energy Services
 - Well Service Vehicles
 - Drilling
 - Tanks
- Cranes and Construction Equipment
- Waste and Recycling Industry
 - Garbage Trucks
- Trailers and Rolling Stock

Mix Ratio

1 part by volume of component A [**CLRFXXXXX**]
(Part Number varies with color)
1 part by volume of component B [**FUB0022**]

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

Product Characteristics

Gloss: High Gloss 90+ GU at 60 deg.

Note : Slight gloss variations will occur depending on color

Volume Solids Mixed: 50 ± 4% (depending on color)

Pot Life: 8 -10 Hours at 77°F (25°C) and 50% RH

Note: Pot life is reduced when Supercat II is used

VOC Mixed (Unreduced): (EPA Method 24):

White 120 : 411 g/l (3.431 lb /gal)

Note: VOC content will vary with each color and component B utilized.

Shelf Life:

Component A: 3 years at 77°F (25°C)

Component B: 2 years at 77°F (25°C)

Note: For unopened product

Surface Prep

Endura UltraFlex Topcoat 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.

UltraFlex Topcoat

Technical Data Sheet (TDS)

Application Method

Endura UltraFlex Topcoat can be applied using most spray painting systems.

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

Solid Colors:

Apply two single wet coats allowing up to 30 minutes flash time between coats.

It is recommended that a thinner first coat be applied 1.5 – 2.0 mils wet, followed by a wet coat of 2.0 - 3.5 mils wet. Allow up to 30 minutes between coats.

Metallic Colors:

Three coats are recommended for metallic colors. Apply two medium coats. Allow up to 30 minutes flash off time between coats then apply a third “mist coat” to achieve a uniform finish.

Note: When a high-hide version of any solid or metallic color is used it must be clear coated to realize full gloss and UV stability.

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	1.0-1.4 mm	50-60 psi	10-14 oz/min
Air Assist Airless	9-17 Thou	1,000-1,800 psi	
Airless	11-13 Thou	1,700-3,000 psi	

Spray Viscosity

Using a Ford 4 Cup (White)	
16 Seconds	Reduce as necessary*
←—————→	
Conventional	Airless

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

If required, recommended spraying viscosity is achieved by reducing with one of the desired Endura topcoat thinner/ reducer

FTH0086 – EX-2C Thinner
FTH0090 – Slo EX-2C Thinner
FTH0014 – Medium Topcoat Reducer

Film Build

UltraFlex Topcoat can be used as a topcoat or it can be topcoated with Ultraflex Clear

UltraFlex Topcoat has a recommended film build thickness of:

UltraFlex Colors recommended film thickness :

**Wet (unreduced): 4.0 – 8.0 mils wet
(100 – 200 microns)**

Dry: 2.0 – 4.0 mils DFT (50 – 100 microns)
Note: With poor hiding colors film build may be higher

UltraFlex Clear has a recommended film thickness of:

**Wet (unreduced): 6.0 – 12.0 mils wet
(150 – 300 microns)**

Dry: 3.0 – 6.0 DFT (75-150 microns)

Higher film builds will require multiple coats; please contact your Endura representative for information.

Theoretical coverage at 1.0 mil (25 microns)
Average DFT: 790 ft² per gallon at 100% transfer efficiency.

UltraFlex Topcoat

Technical Data Sheet (TDS)

Dry Times

	68°F (20°C)	86°F (30°C)	104°F (40°C)
Dust Free	2 hrs	1 hour	30 mins
Full Cure	7-9 Days	5-6 Days	3-4 Days

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

Note: The use of Super Catalyst II with Endura topcoats will accelerate drying times. SuperCat II should only be used when air drying. DO NOT USE SuperCat II if baking the finish.

Clear coat application time:

**Solid colors: Minimum 4 hours
Metallic colors: Minimum 6 hours**

Note: The recoat or clear coat times are based on based on 70°F and 50% RH and recommended film build.

For best results surface temperature must be 86°F (30°C) or less before topcoating.

Maximum re-coat window without sanding is 18 hrs at 68°F (20°C). After 18 hours UltraFlex Topcoat must be sanded to achieve inter-coat adhesion.

Note: Metallics must be topcoated within this re-coat window as sanding not recommended.

Recommended 220 – 320 grit mechanical sanding before topcoating.

Important Note: 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, Endura epoxy reducer or Endura EX-2C thinner.

Follow manufacturer's safety recommendations when using any solvent.

Ordering Information (sizing)

Available in Pints, Quarts, Gallons and 5 Gal Pails

Other custom sizes may be available.

1 Quart		
Comp A	CLRFXXXXX-010	1 Pt.
Part numbers vary by color		
Comp B	FUB0022-010	1 Pt.

2 Quarts		
Comp A	CLRFXXXXX-020	1 Qt.
Part numbers vary by color		
Comp B	FUB0022-020	1 Qt.

2 Gallons		
Comp A	CLRFXXXXX-030	1 Gal.
Part numbers vary by color		
Comp B	FUB0022-030	1 Gal.

10 gallons		
Comp A	CLRFXXXXX-050	5 Gal
Part numbers vary by color		
Comp B	FUB0022-050	5 Gal

UltraFlex Topcoat

Technical Data Sheet (TDS)

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.

Note: For use outside this range please contact your Endura Representative.

Specifications

Hardness	ASTM D3363	2H
Solvent Resistance	ASTM D4752	100 MEK Rubs; No Failure
Abrasion resistance (1000 cycles CS-17)	ASTM D4060	<10 mg loss *varies by color
Impact resistance	ASTM D2794	40 in. lbs; NO failure
Flexibility	ASTM D522	1/8" mandrel bend: NO failure
Service Temp	-40°C to 182°C -40°F to 360°F	

Safety Precautions

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