

## UltraFlex Clear

### Technical Data Sheet (TDS)

#### Product Description

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

##### Product features:

- Exceptional flexibility
- Outstanding chemical resistance
- Outstanding abrasion & impact resistance
- Adds extra protection against mechanical damage.
- High gloss

#### Recommended Uses

UltraFlex Clear is intended for industrial applications, either new build or maintenance. It is suitable for application on EX-2C Topcoat.

##### Industries:

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

#### Product Characteristics

|  |                          |
|--|--------------------------|
| <b>Gloss:</b> High: 90+ GU at 60°  |                          |
| <b>Volume Solids Mixed: Regular B (Unreduced) FUA0204: FUB0022 (1:1)</b>     | 43% ± 2%                 |
| <b>Volume Solids Mixed: Low VOC B (Unreduced) FUA0204: FUB0141 (1:1)</b>     | 44% ± 2%                 |
| <b>Pot Life: (77°F (25°C) and 50% RH)</b>                                    | 8-10 Hours               |
| <b>Pot life is reduced when Super Catalyst II is used</b>                    |                          |
| <b>VOC Mixed (Unreduced): Regular B EPA Method 24 FUA0204: FUB0022 (1:1)</b> | 497 g/l<br>4.150 lb /gal |
| <b>VOC Mixed (Unreduced): Low VOC B EPA Method 24 FUA0204: FUB0141 (1:1)</b> | 360 g/l<br>3.005 lb /gal |
| <b>Shelf Life: For unopened product (77°F (25°C))</b>                        |                          |
| <b>Component A</b>   | 3 years                  |
| <b>Component B</b>   | 2 years                  |

#### Surface Preparation

UltraFlex Clear can be applied on EX-2C Topcoat colors without sanding during the topcoat window. Ensure that surfaces to be clear coated are free of flaws, surface contaminants and other surface imperfections.

If the UltraFlex Clear has been allowed to cure longer than 24 hours, sanding will be required to achieve inter-coat adhesion. Sand the topcoat lightly with 400 grit sandpaper or maroon/grey scuff pads.

- **Do not sand metallic or pearl colors.**
- **Do not mix UltraFlex Clear with metallic color for final coat.**
- **Do not mix UltraFlex Clear into the final color coat on solid colors.** This may cause matching and repeatability issues.

#### Mix Ratio

##### Regular Component B

1 part by volume of component A [FUA0204]  
1 part by volume of component B [FUB0022]

##### Low VOC Component B

1 part by volume of component A [FUA0204]  
1 part by volume of component B [FUB0141]

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

#### Application Method

UltraFlex Clear can be applied using most spray-painting systems. After application of EX-2C Topcoat wait for the following times before application of UltraFlex Clear:

| Solid Colors | Metallic Colors |
|--------------|-----------------|
| 3-18 Hours   | 6-18 hours      |

Apply two wet coats of UltraFlex Clear allowing up to 30 minutes between coats.

**The use of Super Catalyst II with Endura topcoats will accelerate drying times.**

| Spray Gun Setup           |             |                                     |                |
|---------------------------|-------------|-------------------------------------|----------------|
| Feed Type                 | Fluid Tip   | Application Pressures (heel of gun) | Fluid Delivery |
| <b>Siphon Feed</b>        | 1.6-1.8 mm  | 40-50 psi                           |                |
| <b>Gravity Feed</b>       | 1.3-1.4 mm  | 30-40 psi                           |                |
| <b>Pressure Feed</b>      | 1.0-1.4 mm  | 50-60 psi                           | 10-14 oz/min   |
| <b>Air Assist Airless</b> | 9 -13 Thou  | 1,000-1,800 psi                     |                |
| <b>Airless</b>            | 11 -13 Thou | 1,700-3,000 psi                     |                |

| Suggested Viscosity Ranges<br>Ford 4 Viscosity Cup at 68°F (20°C) |              |
|---|--------------|
| <b>Airless</b>  | 23 - 26 secs |
| <b>Air Assist Airless</b>   | 21 - 24 secs |
| <b>Conventional</b>   | 20 - 22 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 regular or Low VOC Topcoat reducers up to 30 % by volume.

##### Regular VOC thinners/reducers

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

##### Low VOC thinners/reducers

FTH0021 – Low VOC Topcoat Thinner/ Reducer  
FTH0023 – Slow Low VOC Topcoat Thinner / Reducer

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### Technical Data Sheet (TDS)

#### Film Build

UltraFlex Clear recommended film thickness:

|                           |                 |                   |
|---------------------------|-----------------|-------------------|
| <b>Wet: WFT Unreduced</b> | 6.0 – 12.0 mils | 150 – 300 microns |
| <b>Dry: DFT</b>           | 3.0 – 6.0 mils  | 75 - 150 microns  |

Higher film builds will require multiple coats. Contact your Endura Representative for more information.

Theoretical coverage at 1.0 mil (25 microns). Average DFT: 691 ft<sup>2</sup> per gallon at 100% transfer efficiency.

#### Dry Times

|                  | 68°F(20°C) | 86°F(30°C) | 104°F(40°C) |
|------------------|------------|------------|-------------|
| <b>Dust Free</b> | 2 Hours    | 1 Hour     | 30 Minutes  |
| <b>Full Cure</b> | 7-9 Days   | 5-6 Days   | 3-4 Days    |

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

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

**The use of Super Catalyst II with Endura topcoats will accelerate drying times.**

**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 three 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)

|                  |             |                |                       |
|------------------|-------------|----------------|-----------------------|
| UltraFlex Clear  |             |                | 1 mixed quart (946ml) |
| Comp A           | FUA0204-010 | 1 pint (473ml) |                       |
| Comp B (Regular) | FUB0022-010 | 1 pint (473ml) |                       |
| Comp B (Low VOC) | FUB0141-010 | 1 pint (473ml) |                       |

|                  |             |                  |                        |
|------------------|-------------|------------------|------------------------|
| UltraFlex Clear  |             |                  | 2 mixed quarts (1.89l) |
| Comp A           | FUA0204-020 | 1 quart (946 ml) |                        |
| Comp B (Regular) | FUB0022-020 | 1 quart (946 ml) |                        |
| Comp B (Low VOC) | FUB0141-020 | 1 quart (946 ml) |                        |

|                  |             |                         |
|------------------|-------------|-------------------------|
| UltraFlex Clear  |             | 2 mixed gallons (7.56l) |
| Comp A           | FUA0204-030 | 1 gallon (3.78l)        |
| Comp B (Regular) | FUB0022-030 | 1 gallon (3.78l)        |
| Comp B (Low VOC) | FUB0141-030 | 1 gallon (3.78l)        |

|                  |             |                          |
|------------------|-------------|--------------------------|
| UltraFlex Clear  |             | 10 mixed gallons (37.8l) |
| Comp A           | FUA0204-050 | 5 gallons (18.9l)        |
| Comp B (Regular) | FUB0022-050 | 5 gallons (18.9l)        |
| Comp B (Low VOC) | FUB0141-050 | 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

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