



# Excel d2m & d2m HS

## Technical Data Sheet (TDS)

### Product Description

**Endura Excel d2m and d2m (HS)** is a two component highly cross-linked, high performance polyester polyurethane coating providing a high gloss surface finish. Excel d2m and d2m (HS) provides excellent adhesion over a wide range of surfaces.

#### Product features:

- Direct to metal application
- Fast cure
- High build
- Excellent color retention
- **VOC Compliant**

### Recommended Uses

Excel d2m and d2m (HS) is intended for industrial applications; either new build or maintenance. Excel d2m and d2m (HS) can be used in direct to metal applications or as a topcoat over primer. Excel d2m and d2m (HS) is suitable for application on all Endura primers.

#### Industries:

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

### Mix Ratio

#### Excel d2m

2 parts by volume of component A [CLRDXXXXX]  
**(Part Number varies with color)**  
1 part by volume of component B [FUB0401]

#### Excel d2m (HS) High Solids

2 parts by volume of component A [CLRDXXXXX]  
**(Part Number varies with color)**  
1 part by volume of component B [FUB0401HS]

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

### Product Characteristics

**Gloss:** Semi-Gloss 40-60 GU at 60 deg.

**Note :** Slight gloss variations will occur depending on color

#### Volume Solids Mixed:

**Using Comp B FUB0401** 70 ± 4%  
(Depending on color)

**Pot Life:** 1-2 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 FUA0408: Comp B FUB0401:**  
233 g/l (1.947 lb /gal)

**Note: All colors are below 420 g/l (3.5 lb/gal)**  
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

#### 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 sand paper.

#### Application over a Primer:

Excel d2m and d2m (HS) 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.



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### Application Method

Excel d2m and d2m (HS) 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 one to two single wet coats 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	1.6-2.0 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	1,700-2,000 psi	

### Spray Viscosity

Using a Ford 4 Cup (White)

14 Seconds*	Reduce as necessary*
Conventional	Airless

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

To maintain VOC compliance: if required; thin Excel d2m and d2m (HS) with Endura Low VOC topcoat Thinners/Reducers. VOC content of the following Reducers: (0g/l, 0 lbs/gal)

10 % with FTH0021 – Low VOC Topcoat Thinner/ Reducer  
 10% with FTH0023 – Slow Low VOC Topcoat Thinner / Reducer

### Film Build

**Endura Excel d2m & d2m HS** has a recommended film build thickness of:

**Direct to metal Application:**

**Wet (unreduced): 6.0 – 8.5 mils wet (150 – 215 microns)**

**Dry: 4.0 – 6.0 mils DFT (100 – 150 microns)**  
 Note: With poor hiding colors film build may be higher

**Application over Primer:**

**Wet (unreduced): 3.5 – 7.0 mils wet (87.5 – 175 microns)**

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

Theoretical coverage at 1.0 mils (25 microns)  
**Average DFT: 1200 ft<sup>2</sup> per gallon at 100% transfer efficiency**

### Dry Times

#### Endura Excel d2m

	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 Days	5 Days	3 Days

#### Endura Excel d2m HS

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



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**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.**

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

Maximum re-coat window without sanding is 24 hrs at 68°F (20°C). After 18 hours Excel d2m or d2m (HS) must be sanded to achieve inter-coat adhesion.

Sanding with 400 - 600 grit sandpaper before recoating is recommended.

**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 Gallons and 5 Gallon Pails  
 Other custom sizes may be available.

#### Excel d2m :

<b>3 Gallons</b>		
Comp A – 2X Part numbers vary by color	CLRDXXXXX-030	1Gal.
Comp B	FUB0401-010	1 Gal.

<b>15 Gallons</b>		
Comp A -2X Part numbers vary by color	CLRDXXXXX-050	5 Gal.
Comp B	FUB0401-050	5 Gal.

#### Excel d2m HS:

<b>3Gallons</b>		
Comp A -2X Part numbers vary by color	CLRDXXXXX-030	1 Gal.
Comp B	FUB0401HS-030	1 Gal.

<b>15 gallons</b>		
Comp A -2X Part numbers vary by color	CLRDXXXXX-050	5 Gal
Comp B	FUB0401HS-050	5Gal

### 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	H – 2H
Solvent Resistance	ASTM D4752	50 MEK Rubs; No Failure
Abrasion Resistance (1000 cycles CS-17)	ASTM D4060	30-40 mg loss
Adhesion Cross Cut	ASTM D3002	5 (100/100)
Impact resistance	ASTM D2794	40 in. lbs; NO failure
Service Temp	-40°C to +182°C -40°F to 360°F	



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#### **Safety Precautions**

Please refer to all Safety Data Sheets (SDS) before using this product. SDS sheets can be found on our website at [www.polyglasscoatings.com](http://www.polyglasscoatings.com)