



# Excel d2m & d2m HS

## Technical Data Sheet (TDS)

### Product Description

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

#### Product features:

- Direct to metal application
- Fast cure
- High build
- Excellent color retention
- Solid colors only
- 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 Sag

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

<b>Gloss:</b>	Semi: 20-60 GU at 60°
Slight gloss variations will occur depending on color.	
<b>Volume Solids Mixed: (Unreduced)</b> FUA0408: FUB0401 (2:1)	58% ± 4%
Volume solids will vary by color	
<b>Pot Life:</b> (77°F (25°C) and 50% RH)	1-2 Hours
<b>Note: Pot life is reduced when Super Catalyst II is used</b>	
<b>VOC Mixed (Unreduced):</b> EPA Method 24 FUA0408: FUB0401 (2:1)	366 g/l 3.055 lb. /gal
All colors are below 420 g/l (3.5 lb./gal) VOC content will vary with each color and specific Component B used	
<b>Shelf Life:</b>	
<b>Component A</b>	3 years
<b>Component B</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:

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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## Technical Data Sheet (TDS)

### Application Method

Excel d2m and d2m (HS) Topcoat can be applied using most spray painting systems.

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

#### Solid Colors:

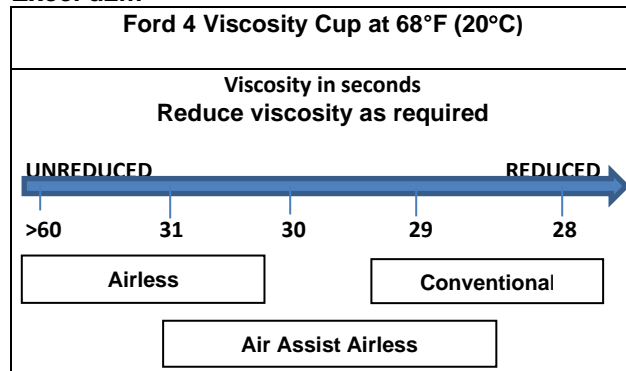
Apply one to two single wet coats to achieve recommended film thickness allowing up to 30 minutes flash time between coats.

### Spray Gun Setup

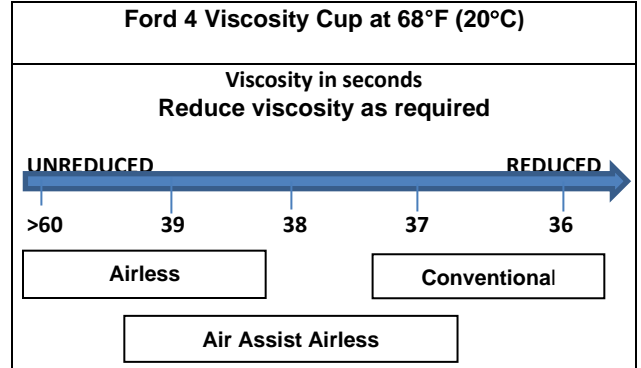
Feed Type	Fluid Tip	Application Pressures (heel of gun)	Fluid Delivery
Siphon Feed	1.6-2.0 mm	40-50 psi	
Gravity Feed	1.3-1.4 mm	30-40 psi	
Pressure Feed	1.0-1.8 mm	55-65 psi	10-14 oz/min
Air Assist Airless	11-13 Thou	1,000-1,800 psi	
Airless	11-13 Thou	1,700-2,000 psi	

### Spray Viscosity

#### Excel d2m



#### Excel d2m HS



**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 with Endura Low VOC topcoat Thinners/Reducers.

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

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

### Film Build

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

Direct to metal Application		
Wet: WFT Unreduced	7.0 – 10 mils	178 – 254 microns
Dry: DFT	4.0 – 6.0 mils	100 – 150 microns

Application over Primer		
Wet: WFT Unreduced	3.5 – 7.0 mils	87.5 – 175microns
Dry: DFT	2.0 – 4.0 mils	50 – 100 microns

Poor hiding colors film build may be higher.

Theoretical coverage at 1.0 mils (25 microns)  
 Average DFT: 930 ft<sup>2</sup> per gallon at 100% transfer efficiency.



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### Dry Times

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

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

**Note: 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.

Maximum re-coat window without sanding is 18 hours 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.**

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

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)

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

#### Excel d2m:

3 mixed gallons (11.34l)		
Comp A - 2X Part numbers vary by color	CLRDXXXXX-030	1 gallon (3.78l)
Comp B	FUB0401-030	1 gallon (3.78l)

15 mixed gallons (56.7l)		
Comp A -2X Part numbers vary by color	CLRDXXXXX-050	5 gallons (18.9l)
Comp B	FUB0401-050	5 gallons (18.9l)

#### Excel d2m HS:

15 mixed gallons (56.7l)		
Comp A -2X Part numbers vary by color	CLRDXXXXX-050	5 gallons (18.9l)
Comp B	FUB0401HS-050	5 gallons (18.9l)

### 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.

**Excel d2m & d2m HS****Technical Data Sheet (TDS)****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
Impact resistance	ASTM D2794	40 in. lbs; NO failure
Flexibility	ASTM D522	2/3" mandrel bend: NO failure
Service Temp	-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.polyglasscoatings.com](http://www.polyglasscoatings.com).