



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

Gloss:	Semi: 20-60 GU at 60°
Slight gloss variations will occur depending on color.	
Volume Solids Mixed: (Unreduced) FUA0408: FUB0401 (2:1)	58% ± 4%
Volume solids will vary by color	
Pot Life: (77°F (25°C) and 50% RH)	1-2 Hours
Note: Pot life is reduced when Super Catalyst II is used	
VOC Mixed (Unreduced): 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	
Shelf Life:	
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:

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

Solid Colors:

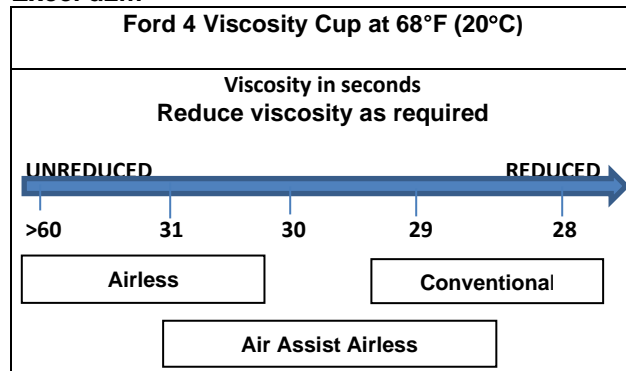
Apply one to two single wet coats to achieve recommended film thickness allowing up to 30 minutes flash time between coats.

Spray Gun Setup

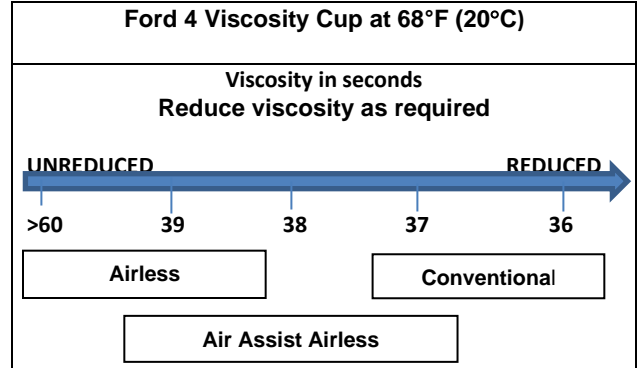
Feed Type	Fluid Tip	Application Pressures (heel of gun)	Fluid Delivery
Siphon Feed	1.6-2.0 mm	40-50 psi	
Gravity Feed	1.3-1.4 mm	30-40 psi	
Pressure Feed	1.0-1.8 mm	55-65 psi	10-14 oz/min
Air Assist Airless	11-13 Thou	1,000-1,800 psi	
Airless	11-13 Thou	1,700-2,000 psi	

Spray Viscosity

Excel d2m



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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 ft² 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)
Dust Free	2 Hours	1 Hour	30 Minutes
Full Cure	7 Days	5 Days	3 Days

Excel d2m HS			
	68°F (20°C)	86°F (30°C)	104°F (40°C)
Dust Free	4-5 Hours	3 Hours	2 Hours
Full Cure	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		
Comp A - 2X Part numbers vary by color	CLRDXXXXX-030	1 Gal.
Comp B	FUB0401-010	1 Gal.

15 Mixed Gallons		
Comp A -2X Part numbers vary by color	CLRDXXXXX-050	5 Gal.
Comp B	FUB0401-050	5 Gal.

Excel d2m HS:

15 Mixed Gallons		
Comp A -2X Part numbers vary by color	CLRDXXXXX-050	5 Gal.
Comp B	FUB0401HS-050	5 Gal.

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.



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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.