



2DM DIRECT TO METAL

PRODUCT DESCRIPTION

Commercial Performance Coatings 2DM Direct To Metal is a two component polyurethane technology containing anticorrosive pigmentation, which can be applied direct to metal substrates giving a high gloss finish.

It is a high productivity, one layer system that can be applied at high film thicknesses - up to 160µm wet film - with good adhesion to most common substrates such as bare steel, tinplate, iron, stainless steel (blasting recommended) and glass fibre reinforced plastics.

Utilizing the SELEMIX® universal tinter system, Commercial Performance Coatings 2DM Direct To Metal is available in a range of colours and gloss levels.

Note: These binders must NOT be used as clear coats by themselves and should always be tinted to a required colour.

PRODUCTS

2K Direct To Metal Mixed Colour		2DMCB and 2DMSB
Hardener		DMH10 Direct To Metal Pack B Fast DMH20 Direct To Metal Pack B Normal
Reducers	<i>Cold conditions</i>	PUR10 Polyurethane Reducer Fast
	<i>Normal conditions</i>	PUR20 Polyurethane Reducer Normal
	<i>Hot conditions</i>	PUR30 Polyurethane Reducer Slow
	<i>Very Hot conditions</i>	PUR40 Polyurethane Reducer Extra Slow
Cleaners		971-9119 PROTEC® Metal Conditioner AA-6822 <i>Protec</i> Heavy Duty Wax & Grease Remover

SUBSTRATES & PREPARATION



Commercial Performance Coatings 2DM Direct To Metal can be applied over the following substrates once they have been prepared as follows:



SUBSTRATE

Cast Iron
Bare Steel
Phosphated Steel
Light Alloys
Aluminium
Fibre Reinforced Plastic

PREPARATION

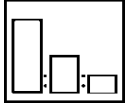
STARTLINE® P80-P120 - dry
Startline P80-P120 - dry, or shot blast
Startline Scourer
Startline P280-P320 - dry
Startline P280-P320 - dry
Startline P240 - dry

Surfaces showing heavy scale or surface rust should be treated with 971-9119 *Protec* Metal Conditioner. Heavily rusted surfaces should be abrasively blast cleaned.

Before and after any sanding operation, the substrate must be thoroughly degreased using AA-6822 *Protec* Heavy Duty Wax & Grease Remover to remove all traces of dirt, oil, grease, silicone, wax etc. After degreasing clean and scuff Aluminium with SWX250 to remove aluminium oxides.

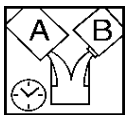
Substrates other than those stated above should be tested before use to ensure that the performance of this product is suitable for its intended use.

MIXING RATIO BY VOLUME



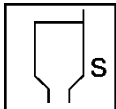
2K Direct To Metal	4
DMH10 or 20	1
Reducer	20 - 40% (by volume)

POT LIFE



Catalysed material is useable for up to 2 hours at 25°C

SPRAY VISCOSITY



CONVENTIONAL, HVLP	18 - 25 seconds (DIN 4) at 25°C
AIRLESS, AIR ASSISTED AIRLESS	25 - 32 seconds (DIN 4) at 25°C

SPRAYGUN



CONVENTIONAL, HVLP SETUP

- GRAVITY 1.4 mm - 1.6 mm
- SUCTION 1.6 mm - 1.8 mm

SPRAY PRESSURE

- CONVENTIONAL 2.0 - 2.5 bar (200 - 300 kPa, 30 - 36 psi)
- HVLP / RP 2 - 3 bar



AIRLESS, AIR ASSISTED AIRLESS SETUP

- TIP 0.011 - 0.013
- PUMP RATIO 32:1

SPRAY PRESSURE

- AIRLESS 100 - 140 bar
- AIR ASSISTED AIRLESS 70 - 100 bar

APPLICATION & FLASH OFF



CONVENTIONAL, HVLP 2 - 3 wet, even coats
AIRLESS, AIR ASSISTED AIRLESS 1 - 2 wet, even coats

Allow 10 - 15 minutes flash off between coats at 25°C

Note: Do not apply at temperatures less than 10°C, when the relative humidity exceeds 80% or if the surface temperature is within 3°C of the dew point.

DRYING TIMES



AIR DRY (25°C)

	DMH10	DMH20
• TOUCH DRY:	20 minutes	1 hour
• TACK FREE:	40 minutes	2 hours
• HARD DRY:	24 hours	24 hours

BAKE (60°C)

30 minutes 45 minutes

Note: Drying times can vary dependent on temperature, flash off between coats, film builds and number of coats applied.

RECOAT



Can be recoated for up to 7 days without sanding. Recommendations are based on 25°C ambient temperature.

If recoating after 7 days the coating must be lightly abraded and degreased prior to painting.

Aged films must be free of chalk and dirt (abraded and degreased) before recoating.

TOTAL DRY FILM BUILD

60 - 100 µm

TECHNICAL PARAMETERS

VOLUME SOLIDS (RFU)	50 - 55%, depending on colour
COVERAGE	4.2 - 5.6 metres squared per litre (m ² /L)
RESISTANCE PROPERTIES	
WEATHERING	Good
ABRASION	Good
SOLVENT	Good to splash and spillage for common solvents
CHEMICAL	Good to splash and spillage for mild chemicals
HEAT	Satisfactory up to 120°C Dry Heat
IMMERSION	Not recommended

EQUIPMENT CLEANING

After use, clean all equipment thoroughly with cleaning solvent or thinner.

HEALTH AND SAFETY

Please refer to Safety Data Sheets (SDS) for full Health and Safety details, as well as product can labels.

Hardeners and activated products contain isocyanate and therefore particular safety precautions must be taken; please refer to SDS for full health and safety details.

This product is for professional use only.
The information given in this sheet is for guidance only. Any person using the product without first making further inquiries as to the suitability of the product for the intended purpose does so at his or her own risk and we can accept no liability for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of such use. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.
Drying times quoted are average times at 25°C/77°F. Film thickness, humidity and shop temperature can all affect drying times.

**PPG Industries Australia Pty Ltd, 14 McNaughton Rd
Clayton, VIC 3168 Australia**

EMERGENCY RESPONSE NUMBER, Australia: 1800 883 254

**PPG Industries New Zealand Pty Ltd, 5 Vestey Dr, Mt Wellington
Auckland, New Zealand**

EMERGENCY RESPONSE NUMBER, New Zealand: 0800 000 096

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