

XTRAFORM® FINE / SUPERMATT

UV Curable Texturing Lacquer

PRODUCT DESCRIPTION

XtraForm Fine and **XtraForm Supermatt** are solvent based, UV curable screen printable texturing lacquers. They are designed to enable a range of matt textured finishes to be printed selectively onto XtraForm films using the XtraForm process.

After drying they can be formed to produce deep draw 3D parts, which when UV cured will give a hard, textured finish. They can also be printed onto graphic inks for automotive dial applications.



READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

PRODUCT RANGE

There are currently two finishes, **XtraForm Fine** and **XtraForm Supermatt**. These can be used on their own or blended together to give a custom finish. In addition, **XtraForm Gloss Modifier** lacquer is available to mix with either of the finishes to change the gloss or texture levels and create a wide range of texture and gloss options.

TYPICAL PROPERTIES

Property	XtraForm Fine	XtraForm Supermatt	Test Method
Gloss ¹			
20°	0.3 to 0.4 GU	0.3 to 0.4 GU	ASTM D2457 Black back-printed
60°	2.0 to 4.0 GU	1.0 to 2.0 GU	
85°	1 to 1.5 GU	3.0 to 4.5 GU	
Haze	93% ± 2%	95% ± 2%	ASTM D1003
Total Luminous Transmission	89% ± 1%	92% ± 1%	ASTM D1003

Property	XtraForm Fine	XtraForm Supermatt	Test Method
MEK Spot Test ^{2,3}	Pass	Pass	Test Method 005
Adhesion ³	Pass	Pass	Test Method 080
Pencil Hardness ^{3,4}	F to H	F to H	Test Method 058
Heat / Humidity Resistance ³	7 days at 60 °C / 95% RH	7 days at 60 °C / 95% RH	Test Method 012

Note - results are quoted for **XtraForm Fine** printed through 90 thread/cm mesh and **XtraForm Supermatt** through 120 thread / cm mesh

¹ Gloss level will vary with print deposit

² Tested on XtraForm. Non-hardcoated polycarbonate film will be inherently solvent sensitive

³ For test method details, please contact MacDermid Alpha Electronics Solutions

⁴ For more information, please refer to MacDermid Alpha Electronics Solutions' statement on pencil hardness testing

PROCESS RECOMMENDATIONS

Method	Recommendations	
Environment	The workroom should be kept clean and dust free. Work areas should be out of direct sunlight, away from windows, and shielded from other sources of UV light such as exposure units. Artificial light should use UV-shielded bulbs.	
Handling	Wear protective equipment (safety glasses, gloves, and protective clothing) and ensure good ventilation at all times. Ensure nitrile or butyl rubber gloves are worn throughout processing until the lacquer has been fully cured to minimize the risk of sensitization by skin contact.	
Equipment	Stencil	Use a solvent resistant stencil with Capillex CX / CPS Ultra Cap HD or PLUS 7000 / CPS Ultra Coat 535
	Mesh	62 to 120 thread/cm for XtraForm Fine 90 to 150 thread/cm for XtraForm Supermatt
	Squeegee	60 to 75 Shore Solvent Resistant squeegee such as Sericol Duralife or RKS HQ. A 20° angle is recommended.
Printing	Suitable for printing on a flatbed or cylinder press and is designed to be printed onto XtraForm, polycarbonate films, and many first surface printed inks. (When printing onto graphic inks, please test the ink chosen to confirm compatibility with the lacquer.)	

Method	Recommendations	
	<p>XtraForm Fine and XtraForm Supermatt should not be left on the mesh when not printing.</p> <p>To avoid contaminating unused lacquer, never return used XtraForm lacquers to the pot, and always replace the lid when not in use.</p>	
Drying	80 to 100 °C using hot air (jet) drier for a minimum of 2 minutes. Do not bake after drying and Do not air or rack dry	
UV Curing	Lamp	Fusion UV electrode-less lamps using H lamps recommended
	Power	240 W
	Optimum intensity	1.5 W / cm ² (UVA measured using an EIT Powerpuck)
	Dose	Minimum dose 2J (XtraForm)
Storage	Below 25 °C but do not allow to freeze. Allow product to equilibrate with room conditions before use. Printed sheets should be racked not stacked. Where stacking is unavoidable <ul style="list-style-type: none"> • There must be less than 50 sheets in the stack • Do not stack for more than 24 hours 	
Hazards	Refer to MSDS	

Note: Full processing guidelines for printing, cutting, moulding, UV curing, and forming are available and must be referred to when designing a process using this product.

SHELF LIFE & STORAGE CONDITIONS

Shelf life of **XtraForm Supermatt** and **XtraForm Fine** is 12 months whereas the **XtraForm Gloss Modifier** is 6 months from the date of manufacture. The shelf life applies to goods stored in cool dry conditions in a sealed container. Once processed this shelf life does not apply. Finished parts can last many years.

IMDS ID-No

By arrangement with our regulatory affairs team.

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use.

Safety Data Sheets are available.

WASTE TREATMENT

Prior to using any recommendations or suggestions for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.

CONTACT INFORMATION

**To confirm this document is the most recent version, please contact
 techinfo@MacDermidAlpha.com**

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE . Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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