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TB540 PU Topcoat Binder DTM High Gloss TB540 / AU

Product Information

Product Description:
TB540 PU Topcoat Binder DTM High Gloss with 70% Binder - 30% Color Toner, optional (60% Binder – 40% Color Toner on low opacity colors), is a two component, polyurethane topcoat DTM (direct to metal). With the exception of aluminum and galvanized substrates, both aluminum and galvanized exist in many different quality's therefore it is recommended to prime these substrates before the application of topcoat with a high gloss finish. This topcoat contains special pigments which enhances corrosion protection. TB540 is especially developed for Industrial OEM and aftermarket repair industry. Application enables fast operation – reducing costs, excellent air-dry and force dry capabilities. All toners are chromate and lead free and provide excellent UV protection.

Preparation:
For more detailed information go-to TI-Substrate and Pre-treatment on Color Retrieval System (CRS) or website www.valsparindustrialmix.com.

Substrates:	Steel, stainless steel (Blasted) cast iron, primed galvanized steel, primed aluminum
Plastic:	FP600 Plastic Primer (adhesion test recommended)
Other:	E-coat, solvent resistant surfaces, original and cured coatings, cleaned/sanded
Primer options:	FP400/401/450/451 Epoxy Primer, FP500/PB500 PU Primer DTM
Steel:	Recommended abrasive blast to SA 2½ or dry sanding P80 – P180
Aluminum:	Because of the wide number of aluminum types we recommend to use primers as described above for the best adhesion and corrosion protection on aluminum before applying this topcoat. For proper preparation of the aluminum substrate follow the steps as described in TI-Aluminum. Sanding aluminum recommendations: P80 – P180*
Galvanized steel:	For proper preparation of the galvanized substrate follow the steps as described in TI-Galvanized steel.
Stainless steel:	Blasting, followed by a VIM Epoxy Primer
Paint finishes:	P280 – P360
Note:	Please, regularly check and change abrasive paper as required

*In light industrial and commercial transport sectors, many different grades of aluminium are used in manufacture and fabrication.
Because of this, good sanding and cleaning is essential to create a sound coating process. Please contact your local technical adviser if unsure of the correct process and or materials.

Material Description: TB540				
Application Method	Minimum DFT µm	Maximum DFT µm	Minimum WFT µm	Maximum WFT µm *
Spraying equipment (not-included airless/airmix)	40µm	65µm	55µm	85µm

* Higher thicknesses require extended drying times

Recoating: Can be coated with CC700 Clear Coat Anti Graffiti (see TDS CC700)

Additives: (optional) AD601/602 Texture Additive Fine/Coarse and AD600 High Build Additive (see TDS AD600/601/602).

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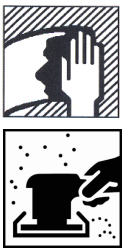
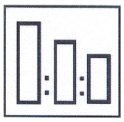
Physical properties:

Chemical base	Polyurethane
Density (kg/l)	1.030 (Binder only)
Volume solids (%)	52.0%
Weight solids (%)	54.0%
Flash point	27.5°C
Pot life (+20°C)	Max. 2 hours
Shelf life	Min. 24 months under normal storage conditions in unopened tins
Theoretical Coverage (m²/Lt.)	Approx. 12.6 m²/L at 40µm / 70% = 8.8 m²/L RFU (DFT)
Gloss	High Gloss >90 GU/60°
Colour	Binder Transparent
Temperature stability	Dry Heat up to 140°C
VOC (g/l)	Max. 500g/l see CRS (VOC: 2004/42/IIB(d)420g/l)
Processing temperature	+10°C till max. +40°C, maximum Humidity 85%

Application Data

<table>
<tr><td>  </td><td>Preparation/ Cleaning:</td><td colspan="3">All surfaces must be properly abrasive blasted or sanded and cleaned. Abrasive blast steel to EN ISO 12944, Part 4 (SA 2½) with a uniform blast profile of 20-50 microns.
Dry sanding:
Steel: P80-P180
Solvent resistant existing ridged paint finishes: P280-P360
Aluminum & Galvanized pre-primed only (see Technical Information- Substrate and Pre-Treatment and or primer Technical Data Sheet)
Cleaning: AD690 Solvent Degreaser
Surface must be dry and free from any contamination, e.g., oil, grease</td></tr>
<tr><td>  </td><td>Handling:</td><td colspan="2">Color preparation:
1. Stir binder until homogeneous
2. Add Color Toners
3. Mix mechanically (paint shaker/ mechanical stirrer)</td><td>Before use/spraying:
1. Mix mechanically (paint shaker, mechanical or pneumatic stirrer)
2. Add Activator and Reducer
3. Stir this mixture well with a mixing stick or a (pneumatic) stirrer</td></tr>
<tr><td rowspan="2">  </td><td colspan="2">Mixing ratio with Color Toner:
(By volume)</td><td>TB540 PU Topcoat Binder DTM High gloss
CT Range of VIM Color Toners</td><td>70 parts
30 parts or</td><td>60 parts
40 parts</td></tr>
<tr><td colspan="2">For mixing machine users:</td><td>For mixing formula’s see VIM CRS</td><td colspan="2">(By weight)</td></tr>
<tr><td rowspan="3"> 
  </td><td colspan="2">Mixing ratio with Activator and Reducer:
(By volume)</td><td>TB540 PU Topcoat DTM High Gloss
AU540 PU Activator
RS603 Universal Reducer Fast or
RS605 Universal Reducer Medium or
RS607 Universal Reducer Slow or
RS609 Universal Reducer Ultra Slow</td><td colspan="2">4 parts
1 part

add max. 25%</td></tr>
<tr><td colspan="2">Faster process of drying:</td><td>AA600 Accelerator</td><td colspan="2">+ 3%</td></tr>
<tr><td colspan="2">Mix stick:</td><td colspan="3">Use the Mixing stick
M2 4:1 (74-202 = 3:1/4:1) or
M6 Universal cm-stick (74-206 standard) / M7 (74-207 large)</td></tr>
</table>

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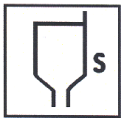
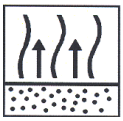
	**Viscosity: (RFU)** 20 – 26 sec. (DIN4/20°C)		
	**Gravity or Suction Feed:** Nozzle set Spray gun "High pressure" Spray gun "Reduced pressure" HVLP (Air cap pressure) Airless/Airmix Pressure Pot	 1.4 – 1.8 mm 3.0 – 4.5 bar (42 – 65 psi) 1.5 – 2.5 bar (21 – 36 psi) 0.7 bar (10 psi) maximum Not recommended 1.0 – 1.5 mm	
	**Application:** **Film Thickness:** (recommended 50 – 65µm)	**Option 1:** ½ coat followed by 1 full coat 40 – 50µm (DFT)	**Option 2:** 1 full closed coat followed by 1 full closed coat 50 – 65µm (DFT)
	**Between coats at 20°C:** **Before baking at 20°C:**	5 minutes 10 minutes	5 – 10 minutes 10 minutes
	**Clean up:** (Check the local regulations!)	RS605/607/609 Universal Reducer or Gun cleaner / Gun wash (solvent)	
	**Air–dry at 20°C:** **Force–dry:**	**Dust Free:** 25 – 30 minutes **Dry to assembly:** 3 – 5 hours **Dry:** 8 – 10 hours 30 – 40 minutes (60°C – 70°C object temperature)	
	**IR–dry:**	12 – 15 minutes (The panel must not exceed 90°C)	
	**Use suitable respiratory protection (air fed respirator strongly recommended).**		
	**Recoatable:** After: min. 1hr/20°C	CC700 Clear Coat Anti Graffiti (See Technical Data Sheet) After 24 hours: Sanding required (define scuff pad)	
	**Polish:**	Dust and minor imperfections can be polished out after the stated air-dry times have been reached, or after a full bake at 60°C object temperature, followed by a cool down of the object to ambient temperature. Before polishing, make sure the surface is well cured. Follow the instructions of the polish manufacture.	

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Precautions: During application all health and safety measures referring to the use and handling of coating materials are to be observed, e. g. existing regulations issued by the trade associations in the Chemical Industry. For Health and Safety information please refer the Safety Datasheet (SDS). Information also available on our webpage: www.valsparindustrialmix.com

Note: The products listed are intended only for the professional user and for professional use. All recommendations given in writing on the use of our products from customers to customers or users are not binding and do not give reasons for secondary obligations resulting from the bill of sale. Every care is taken to ensure that the technical information provided is accurate and up to date according to the present state of knowledge in science and our experience. These recommendations do not, however, exempt the customer from independently checking whether our products are suitable for the intended purpose. The durability of the coating system largely depends on the thorough preparation of the surface. Furthermore our uniform terms of delivery and payment are applicable.

With the publication of this Technical Data Sheet all previous versions regarding this product are no longer valid.