EMEAI Valspar bv
Zuiveringweg 89
8243 PE Lelystad
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Tel. +31 (0) 320292200
www.valsparindustrialmix.com

TB511 PU Topcoat Binder DTM Semi Gloss TB511 / UK

Product Information

Product Description:
TB511 PU Topcoat Binder DTM is a two-component semi-gloss, direct to metal polyurethane topcoat. This topcoat contains special pigments which enhances corrosion protection. For a higher level of anti-corrosion performance, we recommend to use of suitable VIM primer. TB511 is specifically developed for the commercial vehicle and light-industrial markets, with good force- and air-dry capabilities. The standard mixing ratio is 80% Binder/20% Color Toner or optional 70% Binder/30% Color Toner for enhanced opacity. Air drying is recommended, force-drying will result in a higher gloss finish. Selection of hardener, reducer & color, can affect viscosity, flash-off time and thickness, this will also have an influence on the end gloss result, too.

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

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:	FP400/401/440 Epoxy Primer, FP500/PB500/PB500-S PU Primer DTM and FP510/FP511 HS Surfacer.
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:	P320 – P400
Note:	Please, regularly check and change abrasive paper as required

*In light industrial and CT sectors, many different types of aluminium's 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.

Cleaning:	Surface must be dry and free from any contamination, e.g. oil, grease, release agents, use AD690 Degreaser Solvent Based.

Material Description: TB511				
Application Method	Minimum DFT µm	Maximum DFT µm	Minimum WFT µm	Maximum WFT µm *
Spraying equipment (not-including airless/airmix)	50µm	80µm	70µm	120µm

* Higher thicknesses require extended drying times

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

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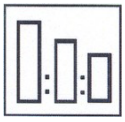
Physical properties:

Chemical base	Polyurethane
Density (kg/l)	1,058 (Binder)
Volume solids (%)	54,7%
Weight Solids (%)	63.0%
Flash point	29.0°C
Pot life (+20°C)	Approx. 1 – 2 hours
Shelf life	Min. 24 months under normal storage conditions and unopened tins
Coverage (m²)	Approx. 8.5m²/L at 40µm (DFT)
Gloss	Semi-Gloss 35–55GU/60°
Color	Binder white-beige
Temperature Stability	Dry Heat up to 140°C
VOC (g/l)	Max. 490g/l see CRS (VOC: 2004/42/IIB(d)420g/l)
Processing temperature	+10°C to max. +40°C, max. Humidity 85%

Application Data

<table>
<tr><td> 
  </td><td>Preparation/ Cleaning:</td><td colspan="4">All surfaces must be properly shot blasted or sanded and cleaned. Abrasive blast to EN ISO 12944, part 4 (SA 2½) with a uniform blast profile.
Dry sanding
Steel: P80-P180
Solvent resistant existing ridged paint finishes: P320-P400
Aluminum & Galvanized pre-primed only (see Technical Information- Substrate and Pretreatment and or primer Technical Data Sheet)
Cleaning: AD690 Degreaser Solvent Based
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 colspan="2">Before use/spraying:
1. Mix mechanically (paint shaker/ mechanical 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" rowspan="2">Mixing ratio with Color toner:
(By volume)</td><td>TB511 PU Topcoat Binder DTM
CT Range of VIM Color Toners</td><td>80 parts
20 parts or</td><td>70 parts
30 parts</td></tr>
<tr><td>For mixing machine users:</td><td>For mixing formulas see VIM CRS</td><td colspan="2">(By weight)</td></tr>
<tr><td rowspan="3"> 
  </td><td colspan="2" rowspan="2">Mixing ratio with Activator and Reducer:
(By volume)</td><td>TB511 PU Topcoat Binder DTM
AU500 PU Activator or
AU577 HS Activator Extra Fast or
AU576 HS Activator Fast or
AU575 HS Activator Medium or
AU574 HS Activator Slow
RS603 Universal Reducer Fast or
RS605 Universal Reducer Medium or
RS607 Universal Reducer Slow or
RS609 Universal Reducer Ultra Slow</td><td colspan="2">5 parts
1 part

10–25 %</td></tr>
<tr><td>Faster process of drying:</td><td>AA600 Accelerator (Advice AU500)</td><td colspan="2">Max. 3%</td></tr>
<tr><td colspan="2">Mix stick:</td><td colspan="3">Use the Mixing stick
M3 5:1 (74-203 =5:1/6:1) or
M6 Universal cm-stick (74-206 standard) / M7 (74-207 large)</td></tr>
</table>

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	**Viscosity:** 20 – 26 sec. (DIN4/20°C)		
	**Gravity or Suction Feed:** Nozzle set Spray gun "HP" Spray gun "RP" HVLP (Air cap pressure) Pressure Pot	 1.3 – 1.6 mm 3.0 – 4.5 bar (42 – 65 psi) 1.5 – 2.0 bar (21 – 30 psi) 0.7 bar (10 psi) maximum 1.0 – 1.3 mm	
	**Application:** **Film Thickness:** (recommended 50 – 80µm)	**Option 1:** ½ coat followed by 1 full coat 40 – 60µm (DFT)	**Option 2:** 1 full closed coat followed by 1 full closed coat 60 – 80µm (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 (solvent)	
	Drying and curing is dependent on speed of the wide range of Activator and Reducer used.		
	**Air–dry at 20°C:** **Force–dry at 60°C:** **IR–dry:**	**Dust Free:** 1 – 3 hours **Dry to assembly:** 4 – 7 hours **Dry:** 12 – 16 hours 20 – 45 minutes (object temperature) 10 – 16 minutes (The panel must not exceed 90°C)	
	**Use suitable respiratory protection (air fed respirator strongly recommended).**		
	**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/emea/en/		
	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 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 autonomously checking whether our products are suitable for the intend 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.		