

Product Information

Product Description:

TB510 PU Topcoat Binder DTM High Gloss is a two-component, 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. TB510 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.

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 Surfacers.
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 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.

Cleaning:	Surface must be dry and free from any contamination, e.g. oil, grease, release agents, use AD690 Degreaser Solvent Based.
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Material Description: TB510

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).





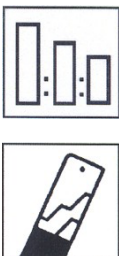
TB510 PU Topcoat Binder DTM High Gloss




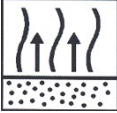






TB510 / UK

Physical properties:

Chemical base	Polyurethane
Density (kg/l)	1,023 (Binder)
Volume solids (%)	52.9%
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	High Gloss >90 GU/60°
Color	Binder Transparent
Temperature Stability	Dry Heat up to 140°C
VOC (g/l)	Max. 490g/l see CRS (VOC: 2004/42/IIIB(d)420g/l)
Processing temperature	+10°C to max. +40°C, max. Humidity 85%

Application Data

 	Preparation/ Cleaning: 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. 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			
	Handling: Color preparation: 1. Stir binder until homogeneous 2. Add Color Toners 3. Mix mechanically (paint shaker/ mechanical stirrer) 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			
	Mixing ratio with Color toner: (By volume) For mixing machine users:	TB510 PU Topcoat Binder DTM CT Range of VIM Color Toners For mixing formulas see VIM CRS	80 parts 20 parts or	70 parts 30 parts (By weight)
	Mixing ratio with Activator and Reducer: (By volume) Faster process of drying: Mix stick:	TB510 PU Topcoat Binder DTM AU500 PU Activator or AU577 HS Activator Very 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 AA600 Accelerator (Advice AU500) 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)	5 parts 1 part Max. 3%	

	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 – 1.4 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:	Dust Free: 1 – 3 hours Dry to assembly: 4 – 7 hours Dry: 12 – 16 hours	
	Force–dry at 60°C: IR–dry:	20 – 45 minutes (object temperature) 10 – 16 minutes (The panel must not exceed 90°C)	
	Use suitable respiratory protection (air fed respirator strongly recommended).		
	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.	



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.