Polyurethane Anti-Scratch Clear Lacquer PL300

Revision: August 2026

Product Description

Polyurethane Clear Lacquer PL300 is produced through the reaction of an acrylic polyol resin with an isocyanate-based hardener. The acrylic polyol component is supplied as Sanyol PL300, while the isocyanate-based hardener is supplied as Metanat PL300. The resin-to-hardener mixing ratio is 2:1, and Metasol PL300 thinner may be added at a ratio of 0.5 when required (2:1:0.5). The product provides suitable drying performance both in an oven and under ambient conditions.

Application Areas

PL300 Polyurethane clear lacquer is a high-performance, solvent-based coating designed for finishing applications on wood and other substrates. It protects various surfaces while improving their appearance and gloss. It is suitable for decorative applications such as furniture, office equipment, restaurants, hospitals, libraries, exhibition halls, laboratories, walls, micro cement floors, and similar environments. It is also used to protect surfaces with limited inherent UV resistance, including epoxy coatings used in wood–resin industries and related applications.

Application Procedure

After surface preparation, mix the components slowly and thoroughly at the specified ratio until a uniform, homogeneous mixture is obtained. During application, prepare only the quantity that can be used within the pot life, ensure adequate ventilation in enclosed areas, maintain a smooth and continuous spray pattern with approximately 50% overlap between passes, and control ambient temperature and relative humidity throughout the coating process.

Storage & Safety

Sanyol PL300 and Metanat PL300 should be stored at 15–35 °C in tightly closed containers in a dry, covered, and well-ventilated area, away from heat and direct sunlight. Temperatures below 5 °C may cause crystallization of the hardener. Avoid prolonged storage above 50 °C. PL300 Polyurethane clear lacquer is specifically designed for industrial use and must be handled in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). The product is flammable and must be kept away from heat, sparks, and open flames. Adequate ventilation is essential in enclosed areas. In case of eye contact, rinse immediately with plenty of cold water and seek medical attention. Suitable extinguishing media include water spray, carbon dioxide (CO_2), foam, and dry chemical powder. High-pressure water jets must not be used. Under recommended storage conditions, the product components have a shelf life of 24 months and a flash point of 25 °C.

© Metasan | metasan.co | 021 91006091

All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto.

Polyurethane Anti-Scratch Clear Lacquer PL300

Revision: August 2026

Specifications

Sanyol PL300 Specifications			
Property	**Unit**	**Value**	**Method/Standard**
Appearance	-	Light Yellow Liquid	Visual
Color	APHA	≤ 30	ASTM D1209
Viscosity at 25 °C	mPa.s	100 – 200	ASTM D2196
Density at 25 °C	g/cm^3	0.95 – 1.00	ASTM D4669
Solids Content	%	50 ± 2	ASTM D2369
Metanat PL300 Specifications			
Appearance	-	Transparent Colorless Liquid	Visual
Color	APHA	≤ 10	ASTM D 1209
Viscosity at 25 °C	mPa.s	10 – 60	ASTM D2983
Density at 25 °C	g/cm^3	1.00 – 1.05	ASTM D1475-13
Solids Content	%	70 ± 2	ASTM D2369-10
PL300 Anti-Scratch clear lacquer Specifications			
Mixing Ratio by weight **Lacquer : Hardener : thinner** (if necessary)	-	2 : 1 : 0.5	Calculated
Application Methods	-	Brush; Roll; Airless/Air Spray	Practical
Pot life at 25 °C, 50 g	Hour	3 – 4	Measured
Theoretical Surface Coverage; **Film Thickness 100 µm (WFT) / 50 µm (DFT)**	m^2/L	10 – 12	Practical
Drying time at 25 °C			
Dust Dry	Min	20 – 30	ASTM D 1640
Touch Dry	Hour	80 – 90	
Through Dry	Hour	4 – 6	
Fully Cured	Day	6 – 7	
Specular Gloss			
@ 20°	GU	≥ 100	ASTM D523
@ 60°		≥ 90	
@ 85°		≥ 80	

© Metasan | metasan.co | 021 91006091

ALL STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED ON TESTS AND DATA WHICH WE BELIEVE TO BE RELIABLE, BUT THE ACCURACY OR COMPLETENESS THEREOF IS NOT GUARANTEED AND NO WARRANTY OF ANY KIND IS MADE WITH RESPECT THERETO.