Polyurethane Clear Lacquer PL100

Revision: July 2026

Product Description

The polyurethane Clear Lacquer **PL100** is a solvent-based 2K coating produced via reaction of a formulated polyol and an isocyanate-based hardener (at a 2:1 ratio). **Sanyol PL100** is a formulated acrylic-based polyol component, and **Metanat PL100** is a formulated isocyanate-based hardener. The PU clear lacquer is suitable for both stoving and air-drying systems.

Application Areas

The PU clear lacquer **PL100** is a high-performance, solvent-based coating designed for finishing applications on wood and other substrates. It protects a wide range of wooden surfaces while enhancing their appearance and gloss. It is suitable for decorative applications such as furniture, office equipment, restaurants, hospitals, libraries, 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 thoroughly at the specified ratio until a uniform, homogeneous mixture is obtained. During application, observe the following: 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 PL100 and **Metanat PL100** 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. The **PL100** 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.

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Specifications

Sanyol PL100 Specifications			
Property	**Unit**	**Value**	**Method/Standard**
Appearance	-	Transparent Light-Yellow Liquid	Visual
Color	APHA	≤ 40	ASTM D1209
Viscosity at 25 °C	mPa.s	40 – 100	ASTM D2196
Density at 25 °C	g/cm^3	0.95 – 1.00	ASTM D4669
Solids Content	%	45 ± 2	ASTM D2369
Metanat PL100 Specifications			
Appearance	-	Transparent Colorless Liquid	Visual
Color	APHA	≤ 10	ASTM D 1209
Viscosity at 25 °C	mPa·s	30 – 80	ASTM D2983
Density at 25 °C	g/cm^3	1.00 – 1.05	ASTM D1475-13
Solids Content	%	55 ± 2	ASTM D2369-10
PL100 clear lacquer Specifications			
Mixing Ratio by weight; (Polyol: Hardener)	-	2:1	Calculated
Application Methods	-	Brush; Roll; Airless/Air Spray	Practical
Pot life at 25 °C, 50 g	Hour	4 – 5	Measured
Drying time (25 °C; 50 – 60 µm DFT)			ASTM D 1640
Dust Dry	Min	30 – 40	
Tack Free	Hour	1 – 2	
Through Dry	Hour	6 – 8	
Fully Cured	Day	5 – 7	
Theoretical Surface Coverage; (Film Thickness 100 µm WFT/50 µm DFT)	m^2/L	10 – 12	Practical

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