

DanBond P10

Crystal Polyurethane Adhesive

DanBond P10 is a crystal clear and colourless two-component polyurethane adhesive for bonding plastics (e.g. polycarbonate) as well as plastics to steel, stainless steel, aluminium, concrete, wood, and glass.

The high-strength and fast-curing structural adhesive is sandable and paintable after approx. 30 minutes. It provides excellent adhesion to a variety of materials and is resistant to weathering and many aggressive chemicals. P10 is temperature-resistant from -55 °C to +100°C (-67 to +212 °F).

Due to its transparent curing, it is particularly suitable for bonding e.g. plastics and glass. It can also be used for structural adhesive bonding, where a coloured adhesive joint would affect the overall appearance of the component. PU Crystal bonds transparent plastics, like Plexiglas and other materials, can be bonded safely in a clean and visually appealing way.

FEATURES:

- High-strength
- Fast-curing
- For transparent and visually
- Appealing adhesive bonds

Technical Data

Composition	Polyurethane
Colour	crystal clear
Mixing ratio by weight (Resin / Hardener)	1:1
Density of the mixture	1,13 g/cm ³
Viscosity at 25°C (+77°F) according to Brookfield	6.000 - 8.000 mPa·s
Pot life at +20°C (+68°F)	2 - 4 min.
Handling strength (35% strength) after	30 min
Capable of bearing mechanical loads (50% strength) after	60 minutes
Final strength (100%) after	12 h
Adhesive gap bridging	0,1 - 4,0 mm
Medium shear strength according to DIN EN 1465 at	
Aluminium	11 N/mm ²
Tensile strength ISO 527 max.	12 N/mm ²
Strength-E-Module (DIN EN ISO 527)	240 - 280 N/mm ²
Steel bright	17 N/mm ²
Galvanized steel	12 N/mm ²
Stainless Steel	17 N/mm ²
PC	3,2 N/mm ²
PMMA	2,3 N/mm ²
Shore hardness D DIN EN ISO 868	73
Tensile Extension ISO 527 max	20 %
Tg after curing at room temperature	48 °C
Thermoforming resistance	+50 °C
Temperature resistance	-55 to +100 °C

Surface pre-treatment

The prerequisite for perfect adhesion are clean and dry surfaces.

The highest strength values can be achieved through additional pretreatment of the surfaces, such as roughening using blasting or abrasive agents. Several plastics, in particular polyamide, Teflon[®], polyolefin etc. can only be bonded after special surface treatment, for example using fluoridation, low-pressure plasma, corona, flame impingement etc.

Processing

DanBond P10 can be processed directly from the double cartridges with the help of the included static mixer. Reject the first 5 cm of the dosed bead. Apply adhesive to only one of the surfaces to be bonded. The pot life given is for a material quantity of 10 ml at room temperature. If larger quantities are used, the curing time will be faster. Similarly, higher ambient temperatures shorten the cure times (as a rule of thumb, every +10°C increase above room temperature will halve working and curing time).

Temperatures below +16°C will extend working and curing times considerably, while below about +5°C, no reaction will take place at all.

Storage

The shelf life is 12 months when stored unopened at a normal climate (+23°C and 50 % rel. humidity).

HANDLING PRECAUTIONS

Please refer to the relevant SDS (Safety Data Sheet) regarding the safe handling of this material.

Note: *All materials, whether innocuous or not, should be handled in accordance with the principles of good industrial hygiene.*

Further technical support or information may be obtained from

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