

SILICONES

and more

Polyurethane Clear 1200

This PU is ideal for making crystal clear castings or colored clear objects like colored gemstones or charms.

Description

Polyurethane Clear 1200 is a crystal-clear two component Poly Urethane molding system which is UV Stable. This version is suitable for molding medium-sized pieces in one cast. The low viscosity allows for easy degasification. This material is easy to handle by hand. However, we recommend mechanical processing for professional use and large castings. This Polyurethane contains no mercury and is therefore safer to work with than other types of clear polyurethane.

Technical data

Mixing ratio (weight)	[A: B]	100:120
Processing time @20 °C	[Min]	23
De-mould time @20 °C *	[Hours]	12
Color (UV-resistant)	[-]	Colourless, clear
Time for full cure (100 g, 60 °C)	[Days]	1
Hardness after fully cure	[Shore D]	75-80
Viscosity @25 °C	[mPa s]	100-350
Density @ 25 °C	[g/cm ³]	1,07

*Please note that the values given are based on a 100 gram sample at 20 degrees with a thickness of between 0.5 and 1.5 cm. Please note that PU is sensitive to moisture. Therefore, always work in a dry place.

Processing

Always use protective gloves and goggles when processing this material. Add the A and B component volume to each other (1: 1) or by weight 100:90, and mix the components thoroughly. Pour the mixed product with a constant and thin jet into the mold. Try not to entrap air. Excessive heat in castings of more than 15mm thickness can be prevented by pouring several successive layers (allow the layer to set but not harden before casting the next layer). De-mould after the specified time has elapsed. The mechanical properties will develop rapidly, but it is possible to improve the thermal behavior by post-curing the casting for one hour in the mold at a temperature of 60 - 70°C.

It is quite difficult to pour polyurethane completely free of bubbles. You get the best bubble-free result by placing the cast form in a liquid state in a pressure chamber at 4 bar during the entire gel time.

Important

If the B component has become too cold, it will crystallise. In this case, the B component should slowly be heated to about 60°C and left there for a few hours (not over a flame!). Low (ambient) temperatures will result in longer pot life and de-mould times. If you want to use this PU with a new mold made from condensation silicone, you need to post cure the silicone mold first 1-2 hours at 100-140 °C (then allow cooling). This prevents reactions between the silicone mold and the PU (stickiness). We highly recommend this crystal clear PU to be used in an addition-curing silicone like the Silicone Plastique or Culinary. Always use this PU at room temperature and preheat the mold to 40-50 °C. Leave the cast to de-air for a few minutes and place the mould back in the oven at 40-50 °C. This prevents formation of gas by contact with water in the air.

Packing

The Polyurethane Clear 1200 is available in a Set of 1,835 kg, 917 grams or 183 grams.

Shelf life

The Crystal clear PU is best stored in a dry place between 18 °C and 28 °C. Opened containers should be processed as soon as possible to ensure the product quality. The shelf life of well-closed containers in the manner indicated is usually 6 months.

Safety

The products are harmful to your health when in liquid form. Skin contact with one or both components must be prevented. Vapors of this product may cause respiratory irritation when used too long or frequently. When handling this product, wear protective gloves. Always work in a well-ventilated area. For further information see a safety data sheet. protective gloves.

In case of skin contact, wash the skin immediately with soap. In case of eye contact, immediately rinse the eye with running water for 15 minutes. If swallowed, rinse mouth and drink water. see a doctor



Characteristics

- Crystal clear
- UV resistant
- Designed for accurate castings
- Can be poured from a layer thickness of 5 mm
- Low viscosity (liquid)
- De-mouldable after 0,5 hours (at 20 °C)
- Can be cast without vacuum. Pressure casting is advised

