

with hand and head



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<https://www.apraktika.hu/en/polyurethane-resin-transparent>

## Transparent Polyurethane Resin: Technical Data Sheet

This polyurethane resin system consists of a polyol and isocyanate components that cure at room temperature and are suitable for manual processing as well.

The cured resin can be used to make very light amber translucent finished products as well as moulds.

It is especially recommended for mould making where the transparency is required during the casting process. In addition the hardened resin will be somewhat flexible.

### Main properties of the hardened product:

- 8-10 minutes pot time
- Easy to use thanks to mixing in a 1: 1 volume ratio
- Very low aggression against the silicone
- Transparent
- Excellent pigmentability
- Odorless
- Very low viscosity, well castable



## 1. Instructions for use

1. Prepare the two components (resin / base and catalyst) and mix them separately. Weigh out the amounts of polyol and isocyanate components given in the table below. You can use a simple syringe for that.
2. Keep the mixing ratio exactly. The technical properties listed below are guaranteed only this case.
3. Do not leave unmixed components on the wall of the mixing bowl.
4. Stir at least for 1 minute to achieve the best result. The polyurethane resin can then be cast.

Crystallization can occur with both the isocyanate and the polyol component.

After opening the bottles possibly use up the resin. Otherwise store under vacuum or oxygen free environment to keep the resin usability longer.

Ensure the components are mixed at least 18 °C.

## 2. Important Recommendations

- Observe the general health and safety regulations
- Wear protective gloves
- Ensure adequate ventilation
- Wear safety goggles and suitable safe clothing



### 3. Chemical and Physical Properties

	Polyol	Isocyanate	Mixture
Mixing ratio by volume %	100	100	
Consistency	liquid	liquid	
Color	clear	Translucent, pale amber	clear
Viscosity at 25 °C (mPas)			100
Density (g / cm <sup>3</sup> ) 25 °C	0,94	1,1	1,07
Hardened Density (g / cm <sup>3</sup> ) 23 °C			9
Pot life at 25 °C (minutes)			72
Hardness Shore D1			659
Flexural modulus of elasticity MPa			21,3
Flexural strength MPa			21,8
Tensile strength MPa			964
Modulus of elasticity MPa			10 %
Elongation at break%			21,2
Compressive strength MPa			221
Compressive modulus of elasticity MPa			50
Bending temperature, °C			60 min.
Disassembly time after gelation 25 °C			75 min.

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The cured finished product is not classified as dangerous in accordance with Directive 88/379 / EEC and subsequent amendments. The hazards of the components can be seen in another document.

## 4. Shelf Life

This translucent polyurethane resin is guaranteed for a period of 6 months if stored correctly at a temperature of between 5°- 27°C (41° - 80°F).

**The advice given verbally, in writing or through demonstrations on the use of the products are based on our knowledge.**

**The use and application of the product by the user lie beyond the control of the company and are therefore the user's own responsibility.**