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https://www.apraktika.hu/en/semi-rigid-translucent-polyurethane

aP-45D Semirigid Polyurethane Resin: Technical Data Sheet

This semi-rigid fastcast polyurethane resin system consists of polyol and isocyanate components that cure at room temperature and is suitable for manual processing.

Bubble-free pieces can be cast from from the resin without applying any vacuuming tools.

Attention! It is not suitable for rotary casting.

Main properties:

- 5 minutes pot time
- Transparent white appearance
- Flexible
- Good impact resistance
- Easy to use 1: 1 volume mixxing ratio
- Odorless
- Extremely low viscosity, almost bubble-free casting

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 volume and pocket scale for weight.

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 oxigen-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	
Mixing ratio by weight	93	100	
Consistency	liquid	liquid	
Color	translucent	translucent	Opaque white
Viscosity at 25 °C (mPas)			250
Density (g / cm^3) 25 °C			1,1
Pot life at 25 °C (minutes)			5
Hardness Shore D1			45
Flexural modulus of elasticity MPa			-
Flexural strength MPa			-
Tensile strength MPa			10,7
Modulus of elasticity MPa			-
Elongation at break %			100 %
Compressive strength MPa			-
Compressive modulus of elasticity MPa			-
Bending temperature, °C			-
Disassembly time (minutes) after gelation 25 °C			30 min.
Shrinkage %			0,7

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

Polyurethane resins are sensitive to the oxygen and moisture content of the air, so try for use up as soon as possible.

Isocyanate is light sensitive and should be stored in a dark, airtight or nitrogen-rich container.

Be careful not to interchange the closing caps.

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.