

Polyurethane Casting Resin

Technical Data Sheet

Description

A very low viscosity, fast curing polyurethane resin system exhibiting high strength, dimensional stability and low shrinkage. The system has been designed for moulding and casting where fine detail is required. The combination of properties and the ease of use of the material will lend itself to a wide range of applications. All the usual ceramic restoration mouldmaking materials can be used to cast polyurethane resin, these include silicone, latex and alginate.

Specification

Colour (Cured) White
Specific Gravity g/ml 0.97 1.08 1.06
Viscosity @25°C mPa.s <200 < 200 <200
Mix Ratio by Weight 1:1
Mix Ratio by Volume 1:1
Usable Life (100g @25°C) 2 Minutes
Gel Time (100g @25°C) 3 Minutes

Cure Schedule

<u>Minimum cure</u>	<u>Full cure</u>
10 minutes @ 25°C	2 days
5 minutes @ 60°C	1 hour
3 minutes @ 80°C	½ hour

Typical Properties

Shrinkage 0.5% (volume)
Shore D Hardness 70

Cleaning Equipment

All equipment should be cleaned before the compound has hardened.
IPA or Acetone can be used to clean mixing tools.

Health and Safety

Polyurethane resin systems may cause sensitisation by skin contact or inhalation may be corrosive, harmful or toxic.
It is therefore strongly recommended that skin and eye contact is avoided by the using of appropriate personal protective equipment; such as gloves, safety glasses or goggles and overalls. Wash any contamination from the skin immediately and thoroughly and do not eat, smoke or drink in the working vicinity.
Under normal working conditions a good source of ventilation is adequate, however if the material is heated, or where vapour levels are likely to exceed the occupational exposure limits appropriate respiratory protection must be worn.
Local exhaust ventilation (LEV) may be required especially for curing ovens or where large volumes of material are curing.
The above is given as a guide only; please refer to MSDS