

## PRC 1708

### References

**Polyol** : PRC 1708 P - SH 120000  
**Isocyanate** : PRC 1700 I / PRC 1708 I - SH 000121

### Definition

Clear transparent polyurethane resin for vacuum casting.  
Suitable for optical pieces prototyping.  
Very high UV stability.  
Easy to polish and to colour.

### Average physical properties of the components

	<b>PRC 1708 P SH 120 000</b>	<b>PRC1700 I / PRC1708 I SH 000 121</b>	<b>Mix SH 120 121</b>
Aspect – Color	Liquid transparent Colorless	Liquid transparent Colorless	Liquid transparent Colorless
Brookfield Viscosity LVT (mPa.s) According to MO-051	<b>450</b>	<b>550</b>	<b>500</b>
Density at 25°C According to MO-032	<b>1.08</b>	<b>1.10</b>	<b>1.10</b>

### Process data

	<b>PRC 1708 P SH 120 000</b>	<b>PRC1700 I / PRC1708 I SH 000 121</b>	<b>Mix SH 120 121</b>
Mixing ratio in weight	<b>60</b>	<b>100</b>	
Mixing time at 25°C (sec.)			<b>90</b>
Pot-life on 160g at 25°C (min.) Test method MO-062			<b>8</b>
Demoulding time at 70°C (min.) Test method MO-116			<b>45</b>

### Average mechanical and thermal properties of the polymer

	<b>Test method</b>	
Hardness / Shore D1	ISO 868	<b>87</b>
Glass transition temperature (1) (°C)	DSC Perkin Elmer	<b>110</b>
Heat Deflection Temperature (1) (°C)	ISO 75 Ae : 2001	<b>105</b>
Flexural modulus of elasticity (1) (MPa)	ISO 178 : 2001	<b>2200</b>
Maximal flexural strength (1) (MPa)	ISO 178 : 2001	<b>80</b>
Tensile modulus of elasticity (1) (MPa)	ISO 527 : 1993	<b>2350</b>
Elongation at maximal tensile strength (1) (%)	ISO 527 : 1993	<b>6,5</b>
Maximal tensile strength (1) (MPa)	ISO 527 : 1993	<b>70</b>
Elongation at break in tension (1) (%)	ISO 527 : 1993	<b>16</b>
Tensile strength at break (1) (MPa)	ISO 527 : 1993	<b>62</b>
Charpy Impact Strength (1) (kJ.m <sup>2</sup> )	ISO 179 : 1994	<b>90</b>
Hazen Coloration - 50 mm in thickness	ISO2211 : 1973	<b>&lt; 30</b>
Refraction index at 20°C	ISO 489 : 1999	<b>1,51</b>

(1) Average values measured on specimens after post curing 2 h at 70° C + 16 h at 100°C+ 24 h at RT

*This document can not be, in any case, used as specification data sheet .The values mentioned on this document are based on tests and researches carried on in our laboratories in precise conditions.*

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