

Data sheet: vacuum casting resin 9070

Description			Medium hard rubber
Features			Excellent optical properties, perfect clarity - any colour can be matched
Suitable for			Seals and gaskets
Cured properties			Test / ISO standard where applicable
Colour		Colourless	
Transparency		Transparent	
Shore hardness	At 23 °C	70 A	868
	At 60 °C	67 A	
	At 80 °C	Not measured	
Flexural strength		68 N/mm ²	178
Flexural modulus		2460 N/mm ²	178
Tensile strength		4.3 N/mm ²	R 527
Tensile modulus		Not measured	R 527
Izod impact		Not measured	180
Yield strength		Not measured	R 527
Elongation yield		Not measured	
Elongation at break		225 %	R 527
Tear strength		20 N/mm ²	34
Thermal conductivity		0.198 W/mK	BS 874
Heat deflection temperature (test piece 110 mm × 12.7 mm × 6.4 mm)		Not measured	
Glass transition temperature		Not measured	
Processing information			Notes
Viscosity	Part A	1000 cPs	At 25 °C
	Part B	160 cPs	
Specific gravity	Part A	0.98	At 25 °C
	Part B	1.18	
Mix ratio A:B		100:50	By weight
Mixing time		30 s to 40 s	
Resin temperature		40 °C	Heating chamber
Mould temperature		70 °C	Heating chamber
Curing temperature		70 °C	Heating chamber
Curing time in mould		180 min	
Pot life		240 s	100 g at 25 °C
Post curing process		None	
Typical shrinkage		0.3 %	

All information is based on results gained from experience and tests and is believed to be accurate but is given without acceptance of liability for loss or damage attributable to reliance thereon. Users should always carry out sufficient tests to establish the suitability of any products for their intended applications.

Handling procedure

Casting procedure

- Shake unopened A and B component cans vigorously for 10 s to 15 s
- Pre-heat mold in oven at 70 °C
- Pre-heat unopened A and B component cans in oven at 70 °C for 2 hours, then place in oven at 40 °C to stabilise prior to use
- Weigh A and B components into separate cups, allowing for cup loss (the amount of resin left in cup A after tipping)
- Add colour pigment to cup A
- Place filled cups in the machine and attach mixing paddle to cup B
- Start vacuum pump
- Switch on mixer motor
- Wait 10 minutes after reaching maximum vacuum level before mixing
- Pour contents of cup A into cup B and mix as fast as possible without splashing
- Pour mixed resin into silicone mould and leak vacuum chamber before the end of the pot life
- Place filled mold in oven to cure resin
- For full instructions on casting procedures refer to *Vacuum Casting Technique: a guide for new users*, available at www.renishaw.com

Special notes

- Exact mould temperature is important
- Exact resin temperature is important
- Use no more than 2 % of total weight colour pigment

Product information

- **Minimum shot weight**
Minimum shot weight is 150 g.
- **Mould life**
Mould life can be increased by using the correct Renishaw release agent and demoulding the casting immediately after curing.
- **Storage**
Store unopened cans at > 20 °C
Protect against frost
Store opened cans in oven at 40 °C with caps on
Both components are sensitive to humidity.
- **In case of crystallisation of B-component**
Place cans in oven at 70 °C for 2 hours then transfer to 40 °C oven to stabilise prior to use.



Please follow the procedure for preparing the vacuum casting system as described in the system operation manual!



Always observe the instructions in the Safety Data Sheets of the product and always work in accordance with the safety instructions of the materials manufacturer! Safety Data Sheets can be found at www.renishaw.com



Wear suitable respiratory protection, safety gloves and safety goggles during the entire filling procedure in accordance with the Safety Data Sheets.

