

Data sheet: vacuum casting resin 8052

Description			Similar to PC/ABS type
Features			Quick de-mould, high temperature resistance
Suitable for			Panels, enclosures
Cured properties			Test / ISO standard where applicable
Colour		White	
Transparency		Opaque	
Shore hardness	At 23 °C At 60 °C At 80 °C	83 D Not measured Not measured	868
Flexural strength		93 N/mm ²	178
Flexural modulus		2000 N/mm ²	178
Tensile strength		57 N/mm ²	R 527
Tensile modulus		1710 N/mm ²	R 527
Izod impact		11 kJ/m ²	180
Yield strength		Not measured	R 527
Elongation yield		Not measured	
Elongation at break		20 %	R 527
Tear strength		Not measured	34
Thermal conductivity		0.225 W/mK	BS 874
Heat deflection temperature		91 °C	(test piece 110 mm × 12.7 mm × 6.4 mm)
Glass transition temperature		110 °C	
Processing information			Notes
Viscosity	Part A Part B	850 cPs 170 cPs	At 25 °C
Specific gravity	Part A Part B	1.10 1.19	At 25 °C
Mix ratio A:B		100:200	By weight
Mixing time		30 s to 60 s	
Resin temperature		40 °C	Heating chamber
Mould temperature		70 °C	Heating chamber
Curing temperature		70 °C	Heating chamber
Curing time in mould		25 min to 30 min	
Pot life		330 s	100 g at 25 °C
Post curing process		None	
Typical shrinkage		0.2 % to 0.3 %	

The information in this data sheet is provided for general guidance only and must not be relied upon as a definitive statement of the product's properties or suitability. Renishaw will not be liable for the consequences of any decision by you to use the product and you must conduct your own testing to determine whether or not the product is suitable for your needs.

Handling procedure

Casting procedure

- Shake unopened A and B component cans vigorously for 10 s to 15 s
- Pre-heat mould 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 mould 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

- **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 to 4 hours and stir resin afterwards.



Please follow the correct procedure for use in your vacuum casting system, as set out in its operating instructions.



Always follow the instructions in the Product Safety Data Sheets 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 Product Safety Data Sheets.

