

# Data sheet: vacuum casting resin 8263

[www.renishaw.com/additive](http://www.renishaw.com/additive)

## Specification

Description		Flame retardant, good impact strength	
Features		Certified fire retardant UL94V-0	
Suitable for		Electrical enclosures	
Cured properties		Test / ISO standard where applicable	
Colour	White		
Transparency	Translucent		
Shore hardness	At 23 °C At 60 °C At 80 °C	83 D 80 D 80 D	868
Flexural strength	93 N/mm <sup>2</sup>		178
Flexural modulus	2200 N/mm <sup>2</sup>		178
Tensile strength	68 N/mm <sup>2</sup>		R 527
Tensile modulus	Not measured		R 527
Izod impact	10 kJ/m <sup>2</sup>		180
Yield strength	Not measured		R 527
Elongation yield	Not measured		
Elongation at break	15 %		R 527
Tear strength	Not measured		34
Thermal conductivity	7 W/mK		BS 874
Heat deflection temperature (test piece 110 mm × 12.7 mm × 6.4 mm)	80 °C		
Glass transition temperature	Not measured		
Processing information		Notes	
Viscosity	Part A Part B	1000 cPs 160 cPs	At 25 °C
Specific gravity	Part A Part B	1.30 1.19	At 25 °C
Mix ratio A:B		100:150	By weight
Mixing time		60 s	
Resin temperature		40 °C	Heating chamber
Mould temperature		70 °C	Heating chamber
Curing temperature		70 °C	Heating chamber
Curing time in mould		60 min	
Pot life		360 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 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)
- When using the C component please, weigh out B component and then add C component to same mixing cup according to the required mixing ratio
- 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](http://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  
All 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 correct procedure for use of 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](http://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.

