

# Data sheet: vacuum casting resin 8060-1

Description		Simulates PP/PE									
<b>Features</b>		Resistant to high temperatures									
<b>Suitable for</b>		Automotive, under bonnet/hood									
Cured properties		Test / ISO standard where applicable									
Colour		Slightly yellow									
Transparency		Translucent									
Shore hardness	At 23 °C At 60 °C At 80 °C	80 D Not measured Not measured								868	
Flexural strength		60 N/mm <sup>2</sup>								178	
Flexural modulus		1310 N/mm <sup>2</sup>								178	
Tensile strength		47 N/mm <sup>2</sup>								R 527	
Tensile modulus		1225 N/mm <sup>2</sup>								R 527	
Izod impact		14 kJ/m <sup>2</sup>								180	
Yield strength		Not measured								R 527	
Elongation yield		Not measured									
Elongation at break		43 %								R 527	
Tear strength		Not measured								34	
Thermal conductivity		Not measured								BS 874	
Heat deflection temperature		105 °C to 175 °C* (test piece 110 mm × 12.7 mm × 6.4 mm)									
Glass transition temperature		127 °C to 195 °C									
Processing information		Notes									
Viscosity	Part A Part B	220 cPs 50 cPs								At 25 °C	
Specific gravity	Part A Part B	1.03 1.21								At 25 °C	
Mix ratio A:B		100:400								By weight	
Mixing time		30 s to 45 s									
Resin temperature		40 °C								Heating chamber	
Mould temperature		70 °C								Heating chamber	
Curing temperature		65 °C to 70 °C								Heating chamber	
Curing time in mould		60 min									
Pot life		285 s								100 g at 25 °C	
Primary degassing		30 min									
Post curing process		*60 min at	100 °C	110 °C	120 °C	130 °C	140 °C	150 °C	160 °C	170 °C	180 °C
		gives heat deflection temp. of	120 °C	125 °C	135 °C	140 °C	155 °C	160 °C	165 °C	170 °C	175 °C
Typical shrinkage		0.5 %									

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 to 15 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

- **Exotherm**  
This product generates a high exotherm heat.
- **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 B-component 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](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.

