

# Data sheet: silicone rubber VTN6001

<b>Description</b>	Transparent, addition cure, silicone rubber.	
<b>Features</b>	Good flowing behaviour and high transparency, excellent chemical and heat resilience	
<b>Suitable for</b>	Resin moulding and vacuum casting	
<b>Cured properties</b>	<b>High tear strength</b>	<b>Test / ISO standard where applicable</b>
Colour	Colourless	
Transparency	Oil bleed, transparent	
Shore hardness At 23 °C	40 A	868
Tensile strength	5.5 N/mm <sup>2</sup>	R 527
Elongation at break	360 %	R 527
Tear strength	25 N/mm	34
Coefficient of thermal expansion	2.4 x 10 <sup>-4</sup> / °C	
<b>Processing information</b>		<b>Notes</b>
Viscosity	35 000 MPa	At 23 °C
Specific gravity	1.08 g/cm <sup>3</sup>	
Mix ratio A:B	100 : 10	By weight
Curing time in mould	24 hours	at 23 °C
Pot life	90 m	at 23 °C
Linear shrinkage	<0.1 %	

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

## Mixing procedure

- Weigh the silicone and catalyst to the ratio indicated overleaf
- Combine the two components and blend well, scraping the sides and bottom of the container to ensure there are no unmixed pockets of material.
- Start the vacuum process to extract all excess air out of the mixed silicone. This usually takes around 10 -15 minutes.
- Ensure that enough volume remains in the container to accommodate the action of the material as the air is extracted from the mix. Silicone rubber may expand up to 7 times its original volume in the process of air extraction under vacuum.
- Pour the mixed material into the mould frame in a slow steady stream and allow to flow freely around and over the model.

## Product information

Secondary degassing is recommended once pouring of the mould is completed. This is to eliminate voids around or under the model if air has been trapped while pouring. It is important to ensure that the whole degassing process is carried out well within the working time of the mixed silicone.

## Special notes

- It is recommended to use a Renishaw vacuum mixer for this work.
- It is important that a clean dry container and mixing paddle is used to avoid adding dirt or contaminants to the mix.
- If a Renishaw vacuum mixer is not available then the mixed material should be left in the container and placed into a Renishaw vacuum casting machine.
- Cure of the mixed silicone material may be inhibited by amines or products with a high sulfur content such as latex rubber.
- Patch testing is advisable prior to use to avoid inhibition



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



Always observe 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 Safety Data Sheets.

