

Data sheet: Vacusil 2000 silicone rubber

Description	Vacusil 2000 is a two-component, addition cure liquid silicone rubber designed for mould making. Vacusil cures at room temperature to a translucent high strength elastic silicone rubber.	
Features	Excellent moulding durability. High strength, excellent tear and tensile strength. Excellent dimensional stability. Easy degassing. Easy de-moulding. Good cure inhibition resistance.	
Suitable for	Vacuum casting silicone moulds for prototyping and low volume production using polyurethane resins. Silicone moulds for vacuum wax casting.	
Cured properties		Test / ISO standard where applicable
Transparency	Translucent rubber	
Tensile strength	4.5 MPa	
Elongation break	380 %	
Tear strength - crescent	32 N/mm ²	
Specific gravity	1.08 g/cm ³	
Shore hardness	37 A	
Processing information		Notes
Unmixed viscosity	65 000 MPa.s	At 23 °C
Mixed viscosity	45 000 MPa.s	At 23 °C
Mix ratio	100:10	
Pot life	90 mins	
Cure time	24 hrs	At 23 °C

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

- Select a mixing container four to five times larger than the volume of silicone rubber to be used.
- Weigh the silicone and catalyst in the required ratio.
- Combine the silicone and catalyst, and mix well, scraping the sides and bottom of the mixing container to ensure that there are no unmixed pockets of material.
- Start the vacuum process to extract all air out of the mixed silicone, this usually takes around 2 mins to 3 mins.
- Ensure that enough volume remains in the mixing container to accommodate the action of the material as the air is extracted out of the mix. Silicone rubber can expand up to 7 times its original volume during the degassing process.
- Pour the mixed silicone and catalyst into the mould frame in a slow and steady stream to allow the silicone to flow freely around and over the model.
- For full instructions on casting procedures refer to Vacuum casting techniques user guide, H-5800-0660, available at www.renishaw.com

Special notes

- Certain materials containing water, sulphur, amine, organometallic compounds or phosphorus compounds, such as condensation cure silicone rubbers, clays, wood resins, synthetic rubbers, adhesive tapes, waxes and paints can cause cure inhibition. It is recommended that a preliminary test be performed to determine the compatibility.
- 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.
- Patch testing is advisable prior to use to avoid inhibition

Product information

- **Storage**
Store in a cool, dry and dark place.
Keep out of the reach of children.
- **Secondary degassing**
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.



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 eye protection and protective gloves during the entire filling procedure in accordance with the Product Safety Data Sheets. Use the product in a well ventilated area.

