



TECHNICAL DATA SHEET

A NEW FORCE IN CHEMICAL MANUFACTURING

AEROSOLS | WELDING CHEMICALS | ADHESIVES & THREADLOCKERS | ANTI-SEIZE & GREASES | CLEANING CHEMICALS & SOLVENTS | ELECTRICAL & ELECTRONICS

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Rapidstick™ Silicone Potting Compound

PART NUMBER	AVAILABLE SIZE
PCT-7000GY-1KG	Dual Component Kit (Part A & Part B) 1Kg Tub

PRODUCT DESCRIPTION

Chemtools® Rapidstick™ Silicone Potting Compound is a room temperature curing RTV rubber which features excellent electrical insulation, high moisture resistance, and a wide temperature range of -60°C to 300°C. Being of relatively low viscosity, it allows complete encapsulation for weather-proofing and mechanical shock protection, and is non-corrosive to copper.

Silicone Potting Compound arrives in a two-part kit – Part A (Resin) and Part B (Hardener) – both parts of which are easily combined at a ratio of 1:1 (by volume). Mixing and application may be performed manually or mechanically, with the cured elastomer drying opaque and moderately hard.

DIRECTIONS (READ LABEL BEFORE USE)

Mixing

Premix the contents of both containers to ensure any settled components are incorporated uniformly.

Measure equal components of Part A and Part B by volume (not weight). Mix gently but thoroughly, stirring from the bottom of the container and around the sides until the colour is uniform. Mixing may be performed mechanically or by hand, but care should be taken to avoid entrapment of air.

Allow the product to stand for approx. 5 - 10 mins to de-air. For critical applications where small voids are undesirable, reduced pressure may be used. Partially filled containers should be subjected to a vacuum of 5 - 10mm of Hg for 5 - 10 minutes.

Once de-aired, pour the mixture slowly into cavities and tap gently to release any entrapped air pockets.

Curing

Initial cure is achieved in 16 - 24 hours at room temperature. To accelerate the cure, higher temperatures may be used. A temperature of 65°C for 2 - 4 hours is recommended and is usually sufficient.



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	PART A	PART B
Appearance	Dark Grey	White
Specific Gravity (25°C)	1.07	1.01
Viscosity (@ 25°C)	9,400cps – 15,000cps	3,000cps – 4,500cps
Non-Volatile Content (2g/2hrs/150°C)	98%	98%
Mixing Ratio (Volume)	1:1 by Volume	
Pot Life (25°C, 100g)	1 hour	
Cure Condition (100g)	130°C: 15min, 100°C: 25min, 70°C: 35min RT: 16hrs	
Shrinkage	< 0.01%	
Weight Loss at High Temperatures (200°C, 5hrs)	< 0.5%	
Non-Volatile Content after Cured (2g/2hrs/150°C)	98%	
Water Absorption	< 0.1%	
Thermal Conductivity (Cal cm/sec ² /°C)	14 x 10 ⁻⁴	
Linear Coefficient of Thermal Expansion (cm/cm/°C) (4-200°C)	1.9 x 10 ⁻⁴	
Flammability	Recognised UL94 V-0 @6mm	
Shelf Life of Unopened Containers (@25°C)	12 months from date of manufacture	

Composition

Polydimethylsiloxane Elastomer

CURED PHYSICAL PROPERTIES:

Colour	Grey
Density	1.04 (g/cm ³)
Gel Time (@ 25°C)	< 30mins
Complete Cure (@ 25°C)	3 – 7 Days
Tensile Strength	≥ 1.0 MPa
Hardness (Shore A)	20 – 30
Shear Strength	≥ 1.0 MPa
Peel Strength	≥ 3.0 N/mm
Tensile Elongation	≥ 250%
Temperature Range	-60 to +300°C.
Volume Resistivity	≥ 1 x 10 ¹⁵ Ωm
Breakdown Voltage	≥ 16 Kv/mm
Dielectric Constant (@1.2Mhz)	2.9

The above mechanical and electrical properties have been measured at 25°C, RH of 55%, and after curing for 7 days



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FIRST AID & SAFETY PRECAUTIONS

Please refer to Safety Data Sheet (SDS) before use. Use with adequate ventilation and avoid breathing fumes. Avoid contact with eyes and skin. This product may produce adverse health conditions, ranging from minor skin irritation to serious systemic effects. It should not be used, stored, or transported until the handling precautions and recommendations as stated in the Safety Data Sheet (SDS) for this product have been fully understood by all persons who will work with the material.

STORAGE

Keep out of reach of children. Store in a sealed container in a cool, dry place (between 8°C - 27°C). Do not return any unused material to its original container. This product may settle during storage.

DISCLAIMER

Chemtools® has made every effort to ensure the information provided in this Technical Data Sheet is accurate at the time of publication. Chemtools® expressly recommends that the user make his/her own assessment to determine the suitability of the product for its intended purpose prior to application. Chemtools shall not be responsible for loss, damage, or injury, resulting from the reliance upon, or failure to adhere to, any recommendations or information contained herein; nor from abnormal use of the material; nor from any hazard inherent in the nature of the material.

FURTHER INFORMATION

Please visit Chemtools® online at www.chemtools.com.au for product photos, marketing materials, Technical Data Sheets, Safety Data Sheets, contact details, and other company/business related information.