MOMENTIVE™

Technical Data Sheet

TSE3033

TSE3033

Description

TSE 3033 is a two-component, transparent heat curable silicone rubber designed for electrical and electronic potting. TSE3033 adheres to various types of materials such as metals, plastics, glass and ceramics without the use of primers.

Key Features and Benefits

- Convenient 1:1 mix ratio by weight
- Low viscosity permits excellent potting
- Transparent appearance
- Primerless adhesion to many substrates - plastics, metals, ceramics and glass
- No reactive by-products; no concerns regarding corrosion
- Excellent resistance to temperatures extremes

Typical Physical Properties

UNCURED PROPERTIES		TSE3033 A	TSE3033 B
Appearance		Transparent liquid	Transparent liquid
Viscosity (23°C)	Pa•s {P}	1.1	0.9
Viscosity after Mixing	Pa•s {P}	1.0	
Mixing Ratio by Weight		1:1	
Work Life (23°C)	h	6	
CURED PROPERTIES (0.5h @ 150°C)			
Appearance		Elastic rubber	
Specific gravity (23°C)	g/cm^3	1.01	
Hardness	Shore A	30	
Tensile Strength	MPa	0.3	
Elongation	%	130	
Adhesive strength*	MPa	0.3	
Volume Resistivity	Ohm · cm	$2.0x10^{15}$	
Dielectric Strength	kV/mm	21	
Dielectric Constant (60Hz)		2.8	
Dissipation Factor (60Hz)		0.001	

* Glass lap shear

Potential Applications

- Potting of electrics parts requiring resistance to temperatures extremes
- Potting of high voltage parts
- Moisture proof coating of electronic circuits boards
- Potting of various modules

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

The warranted shelf life will be indicated by the 'use before date' on the associated documents with a minimum of 4 months when stored in the original unopened containers.

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, and any special storage conditions required for safety. MSDS are available at www.momentive.com or, upon request, from any Momentive Performance Materials (MPM) representative. **For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center**. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Processing Recommendations

Caution

Materials such as water, sulphur, nitrogen compounds, organicmetallic salts,phosphorus compounds, etc. contained in the surface of thesubstrate can inhibit curing. A sample patch should always be conducted before proceeding to determine compatibility.

Cure Time vs. Temperature

Actual cure time will depend on the type and efficiency of the oven used, and the shape, thickness and heat capacity of the parts and containers. A sample test should be conducted to determine the appropriate cure time. Typical cure times and temperatures are as follows:

Temperature	Cure Time
80 °C	4 h
100 °C	2 h
150 °C	0.5 h

Adhesion capability

Suitable substrates Metals: Aluminium, Copper, Ni plate; Stainless steel Plastics: PPS, PBT, Epoxy resin, Polyester, Phenolic resin Rubbers: Heat cured silicone rubber Inorganics: Glass, Ceramics

Not suitable substrates Plastics: PP, PE, Fluorocarbon resin Rubbers: Sulphur vulcanized rubbers, Fluorocarbon rubber

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Availability

TSE 3033 is available as 2kg kits.**TSE 3033 A and B** components are available in each 20 kg drums.

From automotive to healthcare, from electronics to construction, products from Momentive Performance Materials Inc. are practically everywhere you look. We are a global leader in silicones and advanced materials with a 70+ year heritage of innovation and being first to market – with performance applications that improve everyday life. By knowing our customers' needs and creating custom technology platforms for them, we provide science based solutions to help customers increase performance, solve product development issues and engineer better manufacturing processes.

Contact Information For product prices, availability, or order placement, contact our customer service by visiting momentive.com/ContactSilicones.

For literature and technical assistance, visit our website at: www.momentive.com