

SNAPSIL™ TSE397 Fast Cure, Non-corrosive Adhesive Sealant

Product Description

TSE397 is a one-component, fast cure, non-corrosive silicone adhesive sealant that cures on exposure to atmospheric moisture to form an elastic silicone rubber. TSE397 has a pourable consistency and excellent corrosion-free adhesion to metals, including copper, plastics, ceramics, glass, etc without the use of primers.

Key Features and Typical Benefits

- Non-corrosive to metals: meets MIL-A-46146B corrosion test
- Fast cure
- Low odor; releases an alcohol vapor during cure
- Primerless adhesion to many substrates
- Excellent high and low temperature resistance: from -55°C to 200°C
- Excellent weatherability, ozone, and chemical resistance
- Excellent electrical insulation properties
- UL94 HB recognized (File No: E56745): TSE397-B, TSE397-C, TSE397-W
- Simple and easy-to-use one-component system

Typical Physical Properties

Uncured Properties	
Appearance	Flowable paste
Viscosity (23°C) Pa•s {P}	50 {50}
Tack Free Time (23°C) min	10
Corrosion (MIL-A-46146B)	None
Cured Properties (7 days @ 23°C, 50%RH)	
Appearance	Elastic rubber
Density (23°C), g/cm ³	1.04
Hardness (Type A)	13
Tensile Strength MPa {kgf/cm ² }	1.2 {12}
Elongation, %	300
Adhesive Strength *1 MPa {kgf/cm ² }	1.0 {1.0}
Thermal Conductivity *2 W/(m.K)	0.18
Volume Resistivity MΩ•m {Ω•cm}	2.0x10 ⁷ {2.0x10 ¹⁵ }
Dielectric Strength kV/mm	22

Dielectric Constant (60 Hz)	2.9
Dissipation Factor (60 Hz)	0.005

- *1 Aluminum lap shear
- *2 In-house test method

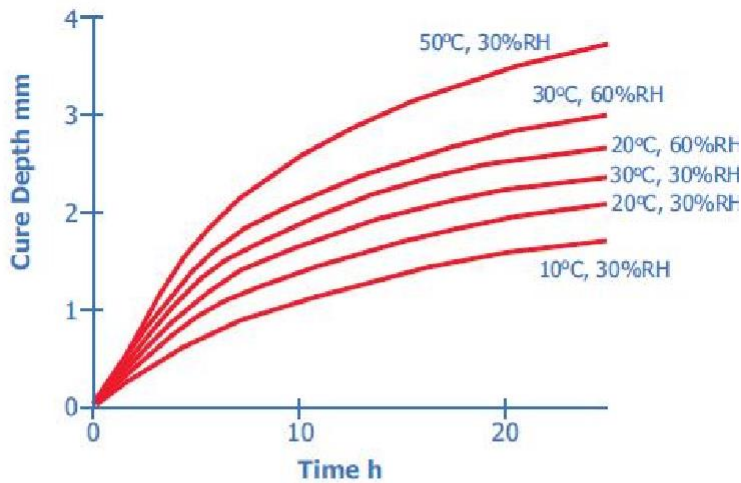
Typical properties are average data and are not to be used as or to develop product specifications.

Potential Applications

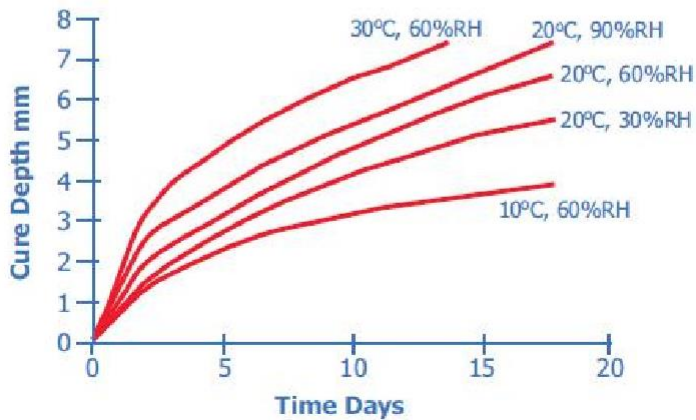
- Insulating adhesive seal and fixing for electrical and electronic parts.
- Waterproof sealant for electrical, electronic and communication equipment
- General adhesive for metals, glass, plastics, etc.

Curing Properties:

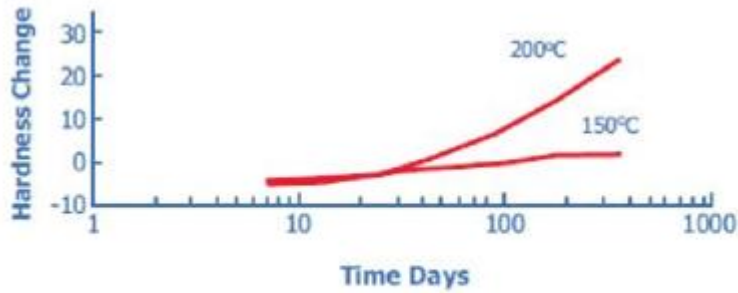
Short-term



Long-term



Heat Resistance:



Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the 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

- Wear eye protection and protective gloves as required while handling the product.
- Maintain adequate ventilation in the work place at all times.
- Store in a cool dry place out of direct sunlight.
- Keep out of the reach of children.

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment, if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any 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.

Limitations

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

Adhesion Capability

TSE397 has excellent bonding properties and adheres to many materials without primers. However, for significantly better adhesion on difficult-to-bond substrates, use of a primer is suggested. The following list of materials shows the quality of adherence of TSE397 used with ME121, ME123, YP3941, XP80-A5363 or without a primer.

SUBSTRATE	NO PRIMER	ME121	ME123	YP9341 / XP80-A5363
Metals				
Copper	O	O		
Steel	O	O		
Mild Steel	O	O		

Brass	O	O		
Stainless Steel	O	O		
Pure Aluminum	O	O		
Corrosion-resistant Aluminum	O	O		
Galvanized Sheet Iron	O	O		
Tin Plate	O	O		
Plastics				
Acrylic Resin	O		O	
Phenolic Resin	O		O	
Epoxy Resin	O		O	
Polycarbonate	O*1		O*1	
Soft Polyvinyl Chloride	O		O	
Rigid Polyvinyl Chloride	O		O	
Melamine Resin	O		O	
Polystyrene	Δ		O	
Polyacetal	X		O	
PPE	O		O	
Polyester Film	O		O	
Unsaturated Polyester Resin	O		O	
Polyimide	O		O	
Nylon66	O		O	O*2
PBT	O		O	X*2
PPS	O		O	O*2
ABS Resin	O			
Polypropylene	X		X	O*3
Polyethylene	X		X	Δ*3
Polytetrafluoroethylene	X		X	X
Silicone Varnish Laminate	O		O	
Silicone Varnish Coated Glass Cloth	O		O	
Rubbers				
Chloroprene	Δ			
Nitryl	Δ			

Styrene Butadiene	Δ			
Ethylene Propylene			O	
Silicone	O		O	
Others				
Glass	O	O		
Ceramics	O	O		
Wood	Δ~ O	Δ~ O		

Note:

O: Excellent (Cohesive failure, 100%)

Δ: Insufficient

X: Poor (Cohesive failure, 0%)

*1: It shows good adhesion but solvent crack may occur depending on the application. A preliminary adhesion test is recommended to confirm.

*2: YP9341

*3: XP80-A5363

Contact Information

Email

commercial.services@momentive.com

Telephone

Americas

+1 800 295 2392
Toll free*
+704 805 6946
Direct Number

*All American
countries

Latin America

Brazil
+55 11 4534 9650
Direct Number

Mexico
+52 55 2169 7670
Direct Number

EMEAI- Europe, Middle East, Africa & India

Europe
+390510924300
Direct number

India, Middle East & Africa
+ 91 44 71212207
Direct number*

*All Middle Eastern
countries, Africa, India,
Pakistan, Bangladesh, Sri
Lanka.

ASIA PACIFIC

China
800 820 0202
Toll free
+86 21 3860 4892
Direct number

Japan
+81 3 5544 3111
Direct number

Korea
+82 2 6201 4600
Direct number

South East Asia, Australia & New Zealand

+60 3 9206 1543
Direct number*

*South East Asia countries (Malaysia,
Singapore, Thailand, Indonesia,
Vietnam, Philippines, Cambodia,
Myanmar / other countries located in
Pacific region).

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

DISCLAIMER:

THE MATERIALS, PRODUCTS, AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS, INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY "SUPPLIER") ARE SOLD SUBJECT TO SUPPLIER'S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS, OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER'S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier's materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier's products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier's standard Conditions of Sale or this Disclaimer unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service, or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design or as a recommendation for the use of such material, product, service, or design in the infringement of any patent or other intellectual property right.

The use of the "™" symbol designates registered or unregistered trademarks of Momentive Performance Materials, Inc. or its affiliated companies. Momentive and the Momentive logo are trademarks of Momentive Performance Materials, Inc.



260 Hudson River Road Waterford,
NY 12188 USA
momentive.com

Copyright 2023 Momentive Performance Materials, Inc. All rights reserved.