MOMENTIVE

Technical Data Sheet

TSE397

TSE397

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. TSE392 has a thixotropic paste consistency and excellent corrosion-free adhesion to metals, including copper, plastics, ceramics, glass, etc. without the use of primers.

Key Features and 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): TSE392-B, TSE392-C, TSE392-G1, TSE392-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, %	360
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

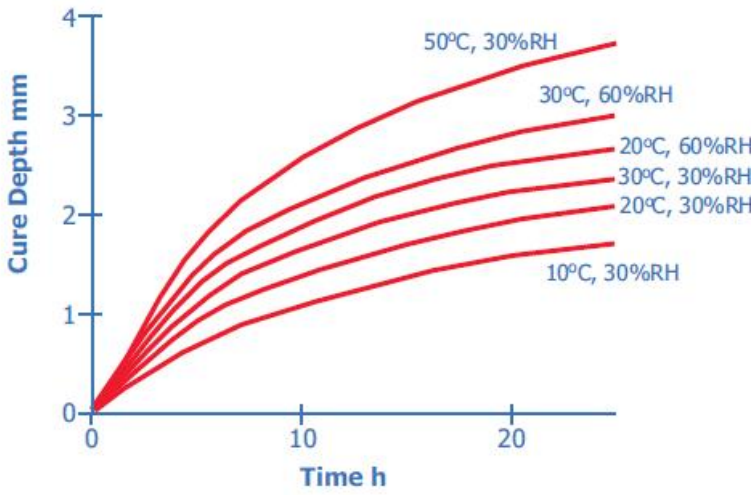
*1 Aluminum lap shear*2 In-house test methodTypical property data values should not be used as specifications.

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.

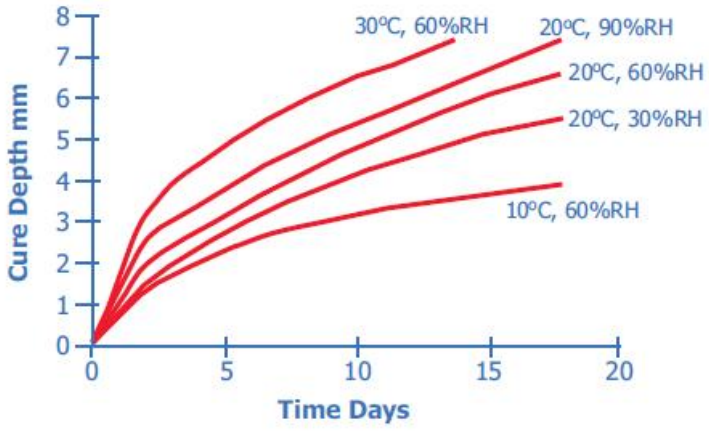
Curing Properties

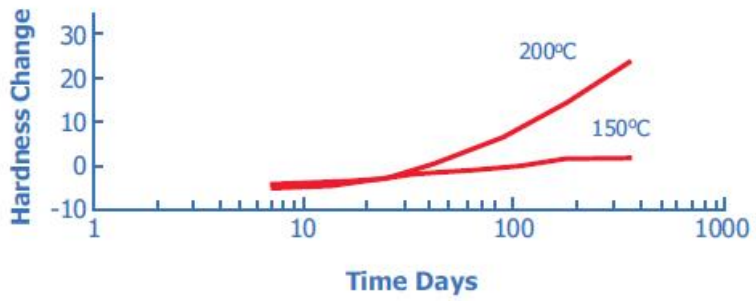
Short-term

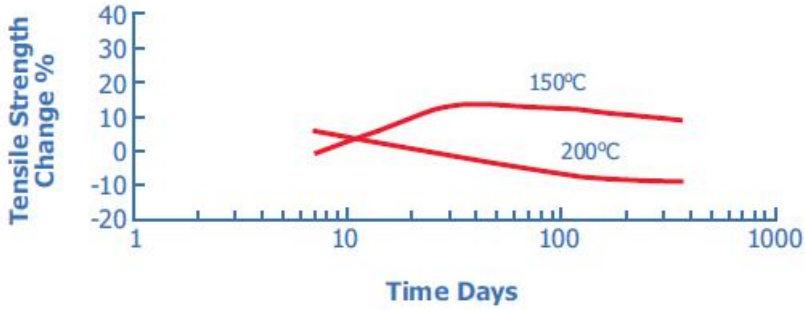


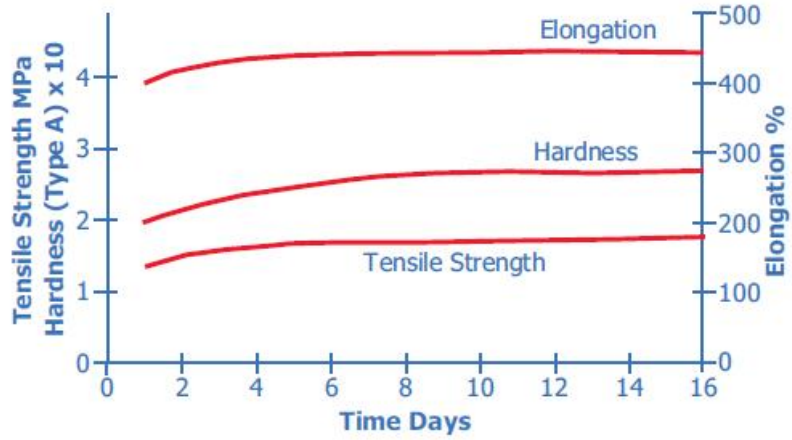
Heat Resistance

Long-term









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

• 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 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.

Limitations

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

Packaging

Packaging and Colors

COLOR SUFFIX	COLOR	PACKAGING
-B	Black	100 g tube available in cases of 20 333 ml cartridge available in cases of 101kg can available in case of 1018 kg pail available
-C	Clear	100 g tube available in cases of 20 333 ml cartridge available in case of 101kg can available in case of 1018 kg pail available
-W	White	100 g tube available in cases of 20333 ml cartridge available in cases of 1018 kg pail available

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: InsufficientX: 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

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