



Flame Retardant Silicone Junction Box Potting Agent

PSL120, a two-component neutral condensation cure silicone rubber, is an excellent candidate to consider for use as electric potting in junction boxes for the photovoltaic industry.

PSL120 typically cures at room temperature to form an elastic flame retardant rubber and adheres to various types of materials such as metals, plastics, glass and ceramics without the use of primers. In addition to its wide operating temperature, it has excellent UV stability and weathering properties.

Key Features and Typical Benefits

- Excellent adhesive properties: primerless adhesion to many types of substrates
- Low viscosity allows for excellent flowability
- Fast and adjustable cure rate
- Excellent deep section cure
- No cure inhibition
- Moisture proof coating of diodes and contacts in junction box
- 2mm: UL 94 V-0, RTI 105°C, HAI/HWI/CTI=0

Typical Physical Properties

Uncured Properties (@ 23°C / 50% RH)		PSL120(A)	PSL120(B)
Appearance		Gray liquid	Blue liquid
Density	g/cm ³	1.41	1.08
Viscosity	mPa·s	4,000	15
Mixing Ratio by Weight		100:7.5	
Mixing Ratio by Volume		100:10	
Viscosity After Mixing	mPa·s	3,000	
Pot Life	h	0.1	
Tack-free Time	Min	20	

Note: Typical property data values should not be used as specifications.



MOMENTIVE
performance materials

The science behind the solutions.

Typical Physical Properties (cont'd)

Cured Properties (3 days @ 23°C / 50% RH)		PSL120 (A)
Appearance		Elastic rubber, gray
Density	g/cm ³	1.41
Hardness (Type A) ⁽¹⁾		60
Tensile Strength	mPa	3.0
Elongation	%	70
Adhesive Strength ⁽²⁾	mPa	1.0
Thermal conductivity ⁽³⁾	W/(m·K)	0.4
Volume Resistivity	M Ω·m	5.0 x 10 ⁷
Dielectric Strength	kV/mm	26
Dielectric Constant (60 Hz)		3.1
Dissipation Factor (60 Hz)		0.01

(1) 2mm thickness x 3 sheets (2) Glass lap shear (3) In-house test

Note: Typical property data values should not be used as specifications.

Typical Adhesion Capacity

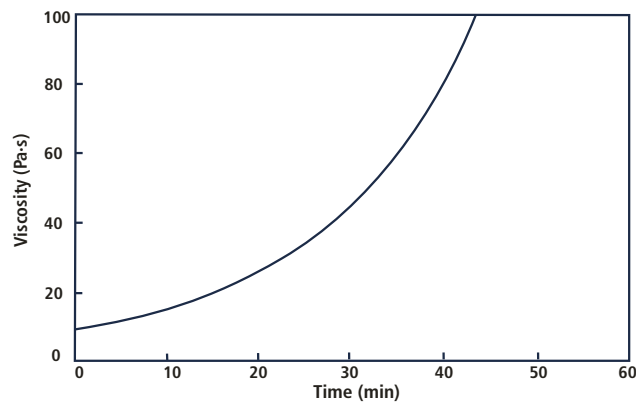
Aluminum	0
Stainless Steel	0
Copper	0
Polyester	0
Epoxy Resin	0
Polycarbonate	0
Acrylic Resin	X
ABS	X
PBT (Polybutylene terephthlate)	X
PPS (Polyphenylene sulfide)	X
PET (Polyethylene terephthlate)	X
PPO (Polyphenylene oxide)	X
Phenolic Resin	0
Nylon-6	X
Nylon-66	X
Glass	0
PVC (Polyvinylchloride)	X
Steel	0
PP (Polypropylene)	X
PE (Polyethylene)	X

0: **Excellent (Cohesive failure)**

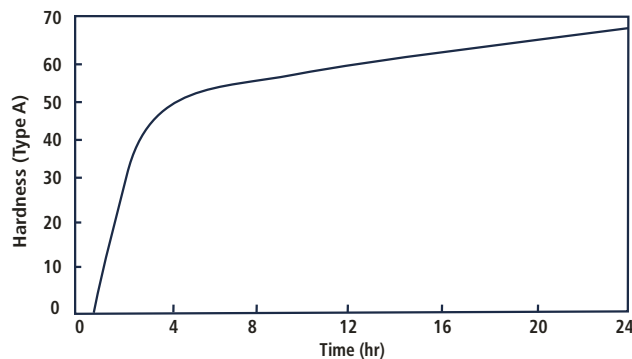
X: **Poor (Adhesive failure)**

Note: Typical property data values should not be used as specifications.

Typical Cure Property: Viscosity (23°C, 50%RH)



Typical Cure Property: Hardness (23°C, 50%RH)



General Instructions For Use

Mixing

In case of filler sedimentation of (A) component during storage, mix it homogeneously before using. Select a mixing container 4-5 times larger than the volume of silicone rubber compound to be used. Weight out (A) and (B) with clean tools, thoroughly mix them, scraping the sides and the bottom of the container carefully to produce a homogeneous mixture.

Deaeration and curing

Air entrapped during mixing should be removed to eliminate voids in the cured rubber. Expose the mixed material to a vacuum of about 20mm of mercury. The material will expand, crest, and recede to about the original level as the bubbles break. Degassing is usually complete about two minutes after frothing ceases. Pour the material in the part, and leave it with the room temperature.

Please ask about our available packaging sizes

Patent Status

Technical subject matter in this publication is described and protected by one or more pending US patent applications and foreign counterparts.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.targray.com or, upon request, from any Targray representative. Use of other materials in conjunction with Targray products may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

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

DISCLAIMER: ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIERS MAKE 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 SUPPLIERS' PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. Each user bears full responsibility for making its own determination as to the suitability of Suppliers' 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 Suppliers' products, materials, or services will be safe and suitable for use under end-use conditions. 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 Suppliers or any of its subsidiaries or affiliates 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.



Made for Targray Technology International Inc. by Momentive Performance Materials



Montreal Head Office

18105 Transcanadienne, Kirkland, Quebec H9J 3Z4 Canada

Tel.: +1 514 695 8095 • Fax.: +1 514 695 0593

E-mail: info@targray.com • www.targray.com