

Ultralane® 769

Ultralane® 769N

Ultralane® 769-5

Ultralane® 769-10

THERMALLY CONDUCTIVE URETHANE ADHESIVES

Ultralane® 769, 769N, 769-5 and 769-10 are one part, thermally conductive urethane adhesives designed for bonding heat sinks and staking of components on PCBs. The cured adhesives are low outgassing, low in ionic contamination, and provides excellent hydrolytic stability. For bond-line control, Ultralane® 769 contains 7 mil spacer beads, Ultralane® 769-5 contains 5 mil spacer beads, Ultralane® 769-10 contains 10 mil spacer beads, and Ultralane® 769N contains no spacer beads. These adhesives are all smooth pastes that dispenses easily from syringes with minimal running or sagging.

SUGGESTED APPLICATIONS:

- Bonding, filleting heat sinks and PC components
- Helps to protect against vibration and thermal shock
- Provides excellent thermal conductivity between components & the circuit board

<u>PROPERTIES</u>	<u>VALUE</u>	<u>TEST METHOD</u>
Visual Appearance - 769	Thick blue paste	
Visual Appearance – 769N	Thick white paste	
Visual Appearance – 769-5	Thick pink paste	
Visual Appearance – 769-10	Thick paste – white or black color as requested	
Density	2.00 g/cm ³	ASTM E-201
Viscosity, at 25°C	450,000 cps	ASTM D-2393
Flash Point	>100°C	ASTM D-92
Mix Ratio by weight and volume:	1 part (use as supplied)	
Pot life, 5cc/10g mass, at 25°C	2 - 5 hours	
Cure Schedules: 3-7 days at 25°C or 2 hours at 82°C or 60 minutes at 95°C.		
<u>CURED PROPERTIES</u>	<u>VALUE</u>	<u>TEST METHOD</u>
Hardness, Shore A at 25°C	70	
After 300 hrs. at 150°C	73	
Tensile Lap Shear Strength at 25°C / at 93°C	300 - 500 psi / 130 psi	ASTM D-1002
Glass Transition Temperature (Tg)	-69°C	
Coefficient of Thermal Expansion		ASTM E-381
Alpha 1 / below Tg	29 ppm / °C	
Alpha 2 / above Tg	88 ppm / °C	
Thermal conductivity	0.90 W/mK	ASTM D-2214
Volume Resistivity at 25°C	2.9 x 10 ¹⁴	ASTM D-257

Product Datasheet



Outgassing

ASTM E-595

Total Mass Loss (TML)	0.4%
Collectible Condensable Volatile Materials (CCVM)	0.01%

PROCESSING AND APPLICATION INSTRUCTIONS:

Ultralane 769, 769N, 769-5, and 769-10 are supplied in syringes. Syringes sizes include 1cc, 3cc, 5cc, and 10cc and custom fill levels are available by request. Syringe styles include HSW manual (thumb plunger operated) syringes and EFD piston operated syringe that are dispensed with air pressure or a dispensing gun. Other syringe brands and types are available by request. Leur lock dispensing needles can be used with most of the syringe sizes and styles to achieve fine control of the dispensed adhesive deposit. For best adhesion apply the adhesive to clean, dry surfaces free of oil, grease, and other contaminants.

STORAGE GUIDELINES:

Store these materials in a clean, cool and dry environment in their tightly closed original containers. Store at -40°C (-40°F) or colder. Extended exposure to temperatures warmer than -40°C may cause the viscosity to increase and reduce the shelf-life of the product. When stored at -40°C (-40°F), these products will have a minimum shelf-life of 6 months from the date of shipment. If stored at -80°C (-112°F), the shelf-life will be at least 9 months from the date of shipment

HANDLING PRECAUTIONS & PERSONAL HYGENIE

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

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WARNING! CONTAINS ORGANIC ISOCYANATE – Can cause skin irritation, eye irritation, allergic respiratory reaction, and allergic skin reaction. Harmful if inhaled. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Do not take internally.

FIRST AID

In case of contact: **Skin** – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather. **Eyes** – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention. **Inhalation** - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician. **Ingestion** - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

DISCLAIMER:

IMPORTANT: The following supercedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

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