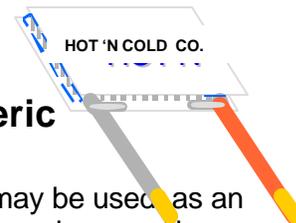


## Product Data Sheet



### 769-3 & 769-4LT UV & Heat Cure Elastomeric for Peltier Devices

This 100% solids, silicone free, very low extractable ions, epoxy coating may be used as an interface in any high reliability electronics or microelectronics application where resiliency and excellent temperature cycling is required. Designed primarily for Thermo-Electric cooler/heaters, this UV and/or heat cured product eliminates the need for two component mixing issues. MicroCoat Technologies 769-3 has a latent heat catalyst that may be used for deep intrusions if desired. The 769-4LT is a low temperature cure. The combination of UV and heat cure systems enables a quick fixture of components by UV hardening of fillets followed by rapid thermal cure of the shadowed areas if present. Alternatively, heat alone may be used to cure the product with no change in elasticity or adhesion. The material is highly thixotropic yet dispenses easily. The cured product is of a low modulus yet does not deflect upon heating in order to bond disparate surfaces such as gold, silicon, aluminum, glass, copper, ceramics, and other oxide surfaces as well as FR-4. The 769 family is inherently low outgassing after cure, and is therefore suitable for applications on or near sensitive components. Preliminary testing shows little change in characteristics at 175°C.

**Special note: Curing by heat alone for any epoxy material will reduce the viscosity thereby affording the chance of flowing in unwanted areas. It is highly suggested that the device be exposed to UV for ~20 seconds. This will eliminate this possibility**

**Typical Physical Properties:**

**Uncured Material**

	*769-3	**769-4LT
Color:	Clear or colored	Clear or colored
Viscosity:	Thixotropic gel	Thixotropic gel
Percent non-volatile material:	99+%	99+%
Flash Point:	>200°C	>200°C
Solubility:	Chlorinated solvents, oxygenated solvents	
Shelf life:	12 Months at Ambient	
*UV/Visible Light and Heat Cure 769-3:	Cure temp: 125°C 10-20 Min.	
**UV/Visible Light and Heat cure 769-4LT	Cure temp: 90°C – 100°C 10-20 Min	
	Cure Time is thickness dependent	

**Cured Material**

Durometer:	D58	D58
Tg by DSC:	<40°C	<40°C
Moisture absorption:	<.05%	<.05%
Mechanical deflection from -50°C – 100°C	1 micron	1 micron
Extractable Ionics:	<10ppm	<10ppm
Extractable Organics:	Fluorinated solvent extraction followed by analysis of residuals: Nothing detected by GC/MS	
Depth of Cure – 30 seconds 250 mW/cm <sup>2</sup> :	.75cm	.75cm
<b><u>Electrical Specifications:</u></b>		
Volume Resistivity:	4X4 X 10 <sup>14</sup>	
Dielectric Strength:	17.7 kV/mm	
Dielectric Constant:	4.0 @ 1Khz	
Thermal Conductivity:	0.29W/m . °K	