



TECHNICAL DATA SHEET

TDS# 2742

DATE: JUNE 2013

BACON INDUSTRIES

THERMALLY CONDUCTIVE URETHANE FLEXOBOND 442 BLACK

FLEXOBOND 442 BLACK is a thermally conductive flexible urethane resin system for bonding or filleting glass diodes or other stress sensitive components while simultaneously proving a heat flow path. This material has excellent electrical properties, flexibility, and is low outgassing. It is being used in aerospace applications on circuit boards and is designed for high reliability. It is available premixed and frozen in FREEZE-PAKS.

TYPICAL UNCURED PROPERTIES:

Viscosity at 77°F	Paste
Work life at 77°F, hours	4
Recommended Cure, hr/°F	2/180

TYPICAL PROPERTIES OF CURED ADHESIVE:

Color	Black
Specific Gravity	1.99
Hardness, Shore A	78
Lap Shear Strength to aluminum, psi	500
Thermal Conductivity, Btu-in/hr-ft ² -°F	6
Dielectric Strength, v/mil	370
Dielectric Constant at 1 kHz	7.16
Dissipation Factor at 1 kHz	0.11
Volume Resistivity at 77°F, ohm-cm	1x10 ¹²
Total Mass Loss (ASTM E595-84) (1), %	0.471
Collectible Volatile Condensable Material (ASTM E595-84) (1), %	0.011
Moisture Absorption in water, %	
7 days at 77°F	0.14
7 days at 200°F	2.91
Fungi Resistance (ASTM E21-90)	No Change

NOTE:

1. Cure for 2 hours at 212°F

(over)

