

TF E2213F

ELECTRICALLY CONDUCTIVE FILM

TECHNICAL DATA

October, 2011

Product Description

TechFilm E2213F is a high performance electrically conductive B-staged film adhesive specially formulated for bonding to gold or gold plated substrates. TechFilm E2213F is especially suited for EMI/RF grounding applications. This product will cure at temperatures above 120C and features good chemical, heat, and moisture resistance.

APPLICATIONS	FEATURES	RECOMMENDED SUBSTRATES
<ul style="list-style-type: none"> • EMI/RF Shielding • Ground Planes 	<ul style="list-style-type: none"> • Electrically conductive • B-staged film • Chemical, heat, moisture resistant 	<ul style="list-style-type: none"> • Gold • Aluminum • Nickel

CURED PROPERTIES *		
Property	Value	Test Method
Color	Silver	Visual
Specific Gravity	3.6	ASTM D792
Glass Transition Temperature, C	108	ASTM E1545
Specific Heat Capacity, J/g-K	0.46	ASTM E1461
Thermal Conductivity, W/M-K	1.3	ASTM E1461
Linear Coefficient of Thermal Expansion, x 10 ^{^-6} /C	Alpha 1 (below Tg): 58	ASTM E831
	Alpha 2 (above Tg): 360	ASTM E831
Weight Loss, TGA, 20C/min, N ₂ , %	@ 150C: 0.2	ASTM D3850, MIL-STD-883 Section 3.8.5.1
	@ 200C: 0.22	
	@ 300C: 0.44	
Volume Resistivity, 25C, Ohm-cm	2.0 x 10 ^{^-2}	TFTEST004A
	9.0 x 10 ^{^-3}	TFTEST004A, after 1000hr @ 150C
	3.0 x 10 ^{^-3}	TFTEST004B
	1.0 x 10 ^{^-3}	TFTEST004B, after 1000hr @ 150C
Space Simulated Outgassing, TML	0.293%	ASTM E595
Space Simulated Outgassing, CVCM	0.026%	ASTM E595
Space Simulated Outgassing, WVR	0.072%	ASTM E595
TENSILE STRENGTH		
Property	Value	Test Method
to Aluminum @ 25C, psi	2300	ASTM D1002
to Nickel @ 25C, psi	2300	ASTM D1002
to Gold @ 25C, psi	2850	ASTM D1002
CURE SCHEDULE *		
Property	Value	Test Method
Cure Time @ 150C, min	60	Typical Cure Schedule
Cure Time @ 160C, min	30	Alternate Cure Schedule
Cure Time @ 130C, min	160	Alternate Cure Schedule

Storage: Store in dry conditions, out of sunlight and in tightly sealed containers.
Shelf Life: Five days @ 20C Two weeks @ 10C Three months @ -10C One year @ -40C

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