



Data Sheet

Product Description

EMS Material Designation	F50R
ASTM Type	TM26
Number of layers	3
Standard Marking	TRUFLEX F50R
Remarks	Low Electrical Resistivity and Medium Flexivity



Chemical Composition

	<u>Grade</u>	<u>Chemistry</u>
High Expansion Alloy	Alloy B	22% Ni, 3% Cr, Bal Fe
Center Layer	Copper	Cu
Low Expansion Alloy	Alloy 10	36% Ni, Bal Fe

Thermostatic Properties

		ENGLISH		METRIC	
ASTM Flexivity	(50-200°F)	147	$\times 10^{-7}$ (in/in)/°F	--	
	(100-300°F)	143	$\times 10^{-7}$ (in/in)/°F	--	
Specific Curvature	(10-93°C)	--		26.5	$\times 10^{-6}$ (mm/mm)/°C
	(38 - 149°C)	--		25.7	$\times 10^{-6}$ (mm/mm)/°C
Maximum Sensitivity Temperature Range	0 to 300	°F		-20 to 150	°C
Useful Deflection Temperature Range	-100 to 500	°F		-70 to 260	°C
Recommended Maximum Temperature	700	°F		370	°C
Electrical Resistivity @ 75°F (24°C)	46.5 to 53.5	OCMF*		0.077 to 0.089	μ ohms-m

Physical Properties

	ENGLISH		METRIC	
Density	0.300	Lb/in ³	8.32	g/cm ³
Modulus of Elasticity (E)	24.0	Msi	165	GPa

*Ohms-Circular-Mil / Foot