



Data Sheet

Product Description

EMS Material Designation	P50R
ASTM Type	TM33
Number of layers	3
Standard Marking	TRUFLEX P50R
Remarks	Low electrical resistivity with high flexivity



Chemical Composition

	<u>Grade</u>	<u>Chemistry</u>
High Expansion Alloy	Alloy P	72% Mn, 18% Cu, 10% Ni
Center Layer	Copper	Cu
Low Expansion Alloy	Alloy 10	36% Ni, Bal Fe

Thermostatic Properties

	ENGLISH		METRIC	
ASTM Flexivity (50-200°F)	208	$\times 10^{-7}$ (in/in)/°F	--	
Specific Curvature (10-93°C)	--		37.4	$\times 10^{-6}$ (mm/mm)/°C
Maximum Sensitivity Temperature Range	0 to 400	°F	-20 to 200	°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	0.286	Lb/in ³	7.91	g/cm ³
Modulus of Elasticity (E)	19.0	Msi	131	GPa

*Ohms-Circular-Mil / Foot

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