



Product Description

EMS Material Designation	B175R
ASTM Type	TM12
Numer of Layers	3
Standard Marking	TRUFLEX B175R
Remarks	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)

Chemical Composition

	<u>Grade</u>	<u>Chemistry</u>
High Expansion Alloy	Alloy B	22% Ni, 3% Cr, 75% Fe
Center Layer	Nickel	Ni
Low Expansion Alloy	Alloy 10	36% Ni, 64% Fe

Thermostatic Properties

	<u>ENGLISH</u>	<u>METRIC</u>
ASTM Flexivity (50-200°F)	138 X 10 ⁻⁷ (in/in)/°F	
(100-300°F)	137 X 10 ⁻⁷ (in/in)/°F	
Specific Curvature (10-93°C)		24.8 X 10 ⁻⁶ (mm/mm)/°C
(38-149°C)		24.7 X 10 ⁻⁶ (mm/mm)/°C
Maximum Sensitivity Temperature Range	0 to 300°F	-20 to 150°C
Useful Deflection Temperature Range	-100 to 700°F	-70 to 370°C
Recommended Maximum Temperature	1000°F	540°C
Electrical Resistivity @ 75°F (24°C)	165 to 185 OCMF*	0.274 to 0.307 U-ohm-m

Physical Properties

	<u>ENGLISH</u>	<u>METRIC</u>
Density	0.301 Lb/in ³	8.33 g/cm ³
Modulus of Elasticity (E)	26 Msi	179 GPa

*Ohms-Circular-Mil / Foot