Engineered Materials Solutions
Wickeder Group

Data Sheet

Product Description

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

Chemical Composition

	Grade	Chemistry
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		**ENGLISH**		**METRIC**	
ASTM Flexivity	(50-200°F)	138	X 10^{-7} (in/in)/° F	--	
	(100°F-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	μ–ohm-m

Physical Properties	**ENGLISH**		**METRIC**	
Density	0.301	Lb/in^3	8.33	g/cm^3
Modulus of Elasticity (E)	26	Msi	179	GPa

***Ohms-Circular-Mil / Foot**

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