



## Product Description

<b>EMS Material Designation</b>	<b>P50R</b>
<b>ASTM Type</b>	<b>TM33</b>
<b>Numer of Layers</b>	<b>3</b>
<b>Standard Marking</b>	<b>TRUFLEX P50R</b>
<b>Remarks</b>	<b>Low Electrical Resistivity with High Flexivity</b>

## Chemical Composition

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

## Thermostatic Properties

	<b>ENGLISH</b>	<b>METRIC</b>
ASTM Flexivity (50-200°F)	208 X 10 <sup>-7</sup> (in/in)/°F	
Specific Curvature (10-93°C)		37.4 X 10 <sup>-6</sup> (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 uohms-m

## Physical Properties

	<b>ENGLISH</b>	<b>METRIC</b>
Density	0.286 Lb/in <sup>3</sup>	7.91 g/cm <sup>3</sup>
Modulus of Elasticity (E)	19 Msi	131 GPa

\*Ohms-Circular-Mil / Foot