



## Product Description

|                                 |  |
|---------------------------------|--|
| <b>EMS Material Designation</b> | <b>P70R</b>  |
| <b>ASTM Type</b>                | <b>TM34</b>  |
| <b>Numer of Layers</b>          | <b>3</b>   |
| <b>Standard Marking</b>         | <b>TRUFLEX P70R</b>  |
| <b>Remarks</b>                  | <b>Low Resistivity, High Flexivity, General Use 0 to 400°F</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)             | 214 X 10 <sup>-7</sup> (in/in)/°F |                                    |
| Specific Curvature (10-93°C)          |                                   | 38.5 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)  | 65 to 75 OCMF*                    | 0.108 to 0.125 uohms-m             |

## Physical Properties

|                           | <b>ENGLISH</b>           | <b>METRIC</b>          |
|---------------------------|--------------------------|------------------------|
| Density                   | 0.283 Lb/in <sup>3</sup> | 7.83 g/cm <sup>3</sup> |
| Modulus of Elasticity (E) | 19 Msi                   | 131 GPa                |

\*Ohms-Circular-Mil / Foot