



## Data Sheet

### Product Description

<b>EMS Material Designation</b>	<b>C3</b>
<b>ASTM Type</b>	<b>TM18</b>
<b>Number of layers</b>	<b>2</b>
<b>Standard Marking</b>	<b>TRUFLEX C3</b>
<b>Remarks</b>	<b>High strength, all purpose 200 to 600 °F (93 to 316 °C)</b>



### Chemical Composition

	<u>Grade</u>	<u>Chemistry</u>
<b>High Expansion Alloy</b>	Alloy C	19.4% Ni, 2.25% Cr, 0.5% C, Bal Fe
<b>Low Expansion Alloy</b>	Alloy 30	42% Ni, Bal Fe

### Thermostatic Properties

		ENGLISH		METRIC	
ASTM Flexivity	(50-200°F)	117	$\times 10^{-7}$ (in/in)/°F	--	
	(100-300°F)	120	$\times 10^{-7}$ (in/in)/°F	--	
Specific Curvature	(10-93°C)	--		21.1	$\times 10^{-6}$ (mm/mm)/°C
	(38-149°C)	--		21.6	$\times 10^{-6}$ (mm/mm)/°C
Maximum Sensitivity Temperature Range		200 to 600	°F	90 to 320	°C
Useful Deflection Temperature Range		-100 to 800	°F	-70 to 430	°C
Recommended Maximum Temperature		1000	°F	540	°C
Electrical Resistivity @ 75°F (24°C)		403 to 437	OCMF*	0.670 to 0.726	$\mu$ ohms-m

### Physical Properties

		ENGLISH		METRIC	
Density		0.296	Lb/in <sup>3</sup>	8.18	g/cm <sup>3</sup>
Modulus of Elasticity (E)		25.0	Msi	172	GPa

\*Ohms-Circular-Mil / Foot