

Temperature range °C	Table XVI. Typical Thermal Expansion Data						
	Linear coefficient of thermal expansion - cm per cm per °C x 10(-6)						
	Class 1 (Kovar)	Class 2 (52 Alloy)	Class 3 (48 Alloy)	Class 4 (46 Alloy)	Class 5 (42 Alloy)	Class 6 (42-6 Alloy)	Class 7 (Invar 36)
<i>30 to 100</i>	-	10.5	9.4	8.2	4.8	-	1.18
<i>30 to 150</i>	-	10.5	9.4	8.1	4.6	-	-
<i>30 to 200</i>	5.5	10.4	9.4	7.9	4.5	-	1.72
<i>30 to 250</i>	-	10.4	9.3	7.8	4.5	-	-
<i>30 to 300</i>	5.1	10.2	8.8	7.5	4.5	8.2	4.92
<i>30 to 325</i>	-	-	-	-	4.7	-	-
<i>30 to 350</i>	-	10.2	9	7.4	5	8.7	6.6
<i>30 to 375</i>	-	-	-	7.5	5.5	-	-
<i>30 to 400</i>	4.9	10.1	8.7	7.5	6	10	7.82
<i>30 to 425</i>	-	-	8.9	7.6	-	-	-
<i>30 to 450</i>	5.3	10.1	9	7.9	7.1	10.6	8.82
<i>30 to 475</i>	-	10.1	9.3	-	-	-	-
<i>30 to 500</i>	6.2	10	9.4	8.6	8	11.2	9.72
<i>30 to 525</i>	-	10.4	-	-	-	-	-
<i>30 to 550</i>	-	10.5	10.2	9.3	8.8	11.7	-
<i>30 to 600</i>	7.9	10.8	10.4	9.8	9.5	12.2	11.35
<i>30 to 700</i>	9.3	11.7	11.3	10.7	10.5	13	12.7
<i>30 to 800</i>	10.4	12.5	12.1	11.6	11.4	13.7	13.45
<i>30 to 900</i>	11.5	13.3	13	12.5	12.3	14.6	13.85
<i>30 to 1000</i>	-	14.2	13.9	13.4	13.2	15.4	-

Properties based upon the Mil I 23011C Specification

* 42-6 Alloy is not readily available