

# C6476 (CuNi1.8Si0.4Zn1.1Sn0.1Mg)

## Composition

Cu (%)	Ni (%)	Si (%)	Sn (%)	Zn (%)	Mg (%)	Pb (%)
93.5 min	0.40-2.5	0.05-0.6	0.30 max	0.20-2.5	0.05 max	0.02 max

## Physical Properties

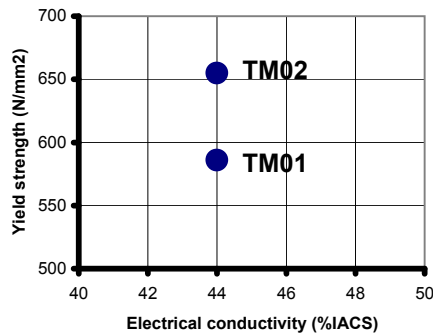
Temper	Melting point (liquidus) °F °C	Density lb/in <sup>3</sup> g/cm <sup>3</sup>	Specific heat cap. at 68 F (20 °C) Btu/lb°F kJ/(kg°K)	Electrical cond. Nom in black % IACS	Thermal cond. at 68 F (20 °C) Btu/ft h °F W/(m°K)	Mod. of elasticity X1000 ksi GPa	Coef. of therm.exp at 68 F (20 °C) 10 <sup>-6</sup> /°F 10 <sup>-6</sup> /°C
All	1989 1087	0.32 8.9	0.09 0.38	44 40	90 156	19 130	9.9 17.3

## Mechanical Properties

At max 0.040" (1 mm)

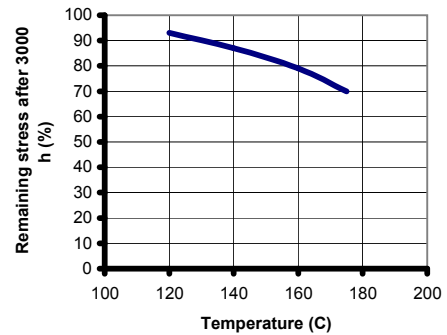
Temper	R <sub>p0.2</sub> Yield strength ksi N/mm <sup>2</sup>	R <sub>m</sub> Tensile strength ksi N/mm <sup>2</sup>	A <sub>50</sub> Elongation 2" %	Hardness for reference HV	Min bend ratio 90°		Min bend ratio 180°	
					GW	BW	GW	BW
TM01	75 min 517 min	87-102 600-704	8 min	190-220	0.0	0.0	0.0	0.5
TM02	85 min 586 min	93-108 641-745	5 min	200-230	0.0	0.5	0.5	1.0

### Typical properties at 0.010" (0.25 mm)



### Stress relaxation resistance

Temp for min 70 % remaining stress after 3000 h (°C)  
TM01 & TM02 max 175 °C



Data for information only  
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## CAC60 (C6476)

### Alloy attributes

CAC60 is an alloy developed by Kobe Steel to meet the requirements for the next generation automotive terminals. Downsizing and for some applications increased temperature demands an excellent combination of formability, stress relaxation resistance, conductivity and strength. CAC60 is designed for small terminals with complicated forming. The good formability makes it possible to use tight 180 degree bends without risk for cracking. The excellent stress relaxation resistance retains high stable normal force also during class 5 applications.

**Good formability**

**High electrical and thermal conductivity**

**Excellent stress relaxation resistance**

**High strength**

**Excellent spring properties**

The alloy contains Ni & Sn. Ni & Sn plated scrap can therefore be recycled.

### Stress strain curves

Typical properties for material at 0.010" (0.25 mm)

