



Main application

Connectors, Springs

Characteristics

- Very good in bend formability and high electrical conductivity for connectors. This unique combination of properties lends the alloy to uses in a vast array of applications including CPU sockets, automotive and electrical connectors and various springs.
- Particularly suitable for replacement of beryllium copper alloy, with eco-friendliness and cost competitiveness for its chemical composition.
- Excellent bend formability though its strength is higher than C7025.
- Very good stress relaxation and heat resistance properties at elevated temperature as well as C7025.
- No heat treatment required for hardening.

Nominal Chemical Composition

Ni	Co	Si	Cu
1.5	1.1	0.6	Bal.

(wt.%)

Physical Properties

Density at 20 °C	g/cm ³	8.82
Modulus of Elasticity	kN/mm ²	131
Electrical Resistivity	$\mu\Omega \cdot m$	$3.4-3.8 \times 10^{-2}$
Thermal Conductivity at 20 °C	W/(m · K)	2.0×10^2
Coefficient of Thermal Expansion at 20-300 °C	$\times 10^{-6} / ^\circ C$	17.6
Melting Point Liquidus	°C	1095
Melting Point Solidus	°C	1075

* Reference value only.

Mechanical Properties

Temper	Yield Strength (0.2% offset) N/mm ²	Tensile Strength* N/mm ²	Elongation* %	Hardness* HV	Electrical Conductivity* %IACS
TM04	750-850	770-900	4min	≥ 220	50
TM06	810-920	840-970	1min	≥ 240	45

1)* Reference value only.

2) In each temper, covered thickness range for production is limited.

Minimum Bending Radius

Temper	90° MBR/t GW/BW
TM04	1.5/1.5 (Below 0.150mm t) 2.0/2.0 (More than 0.150mm t)
TM06	2.0/2.0 (Below 0.150mm t) 2.5/2.5 (More than 0.150mm t)

* Reference value only.