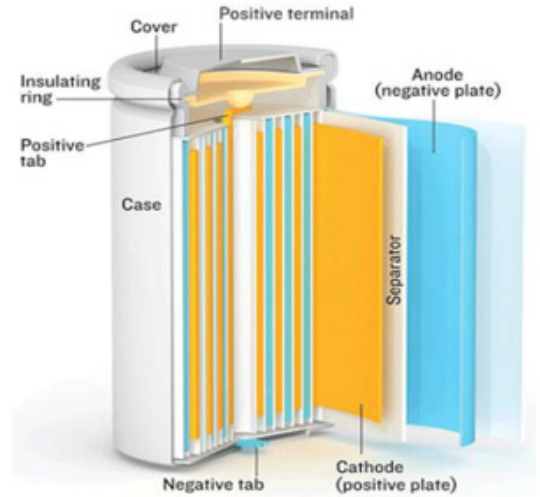




Material Attributes

- Good brazeability and weldability compared to copper
- Excellent electrical and thermal conductivity
- Excellent contact corrosion resistance
- Lower cost compared to pure Nickel
- Excellent joining characteristics



Description

EMS Designation PC730 - Nickel Copper Clad
Composition N02201/C10200 or N02201/C10200/N02201
Ratio Various

Availability

Surface Medium luster matte finish
Temper Annealed Standard (specific tempers also available)
Hardness H_v 50 for Copper, H_v 100 for Nickel (nominal)
Thickness 0.002 - 0.024" (0.05 - 0.60 mm)
Width 0.062 - 12.00" (1.6 - 305mm)

Physical Properties (typical properties)	Ni/Cu 25/75	Ni/Cu/Ni 10/80/10	Ni/Cu/Ni 20/60/20
Density: Lbs/in ³ (g/cm ³)	0.323 (8.94)	0.323 (8.94)	0.322 (8.91)
Yield Stress: Ksi (MPa)	29 (200)	39 (270)	50 (345)
Tensile Strength: Ksi (MPa)	39 (270)	46 (320)	57 (390)
Elongation %	12	12	12
Elastic Modulus: Msi (GPa)	20.3 (140)	19.6 (135)	22.2 (153)
CTE: μin/in/°F (μm/m/°C)	8.7 (15.7)	8.8 (15.8)	8.3 (14.9)
Thermal Conductivity ⁽²⁾ : BTU-ft/h-ft ² -°F (W/mK)	180 (310)	190 (326)	152 (261)

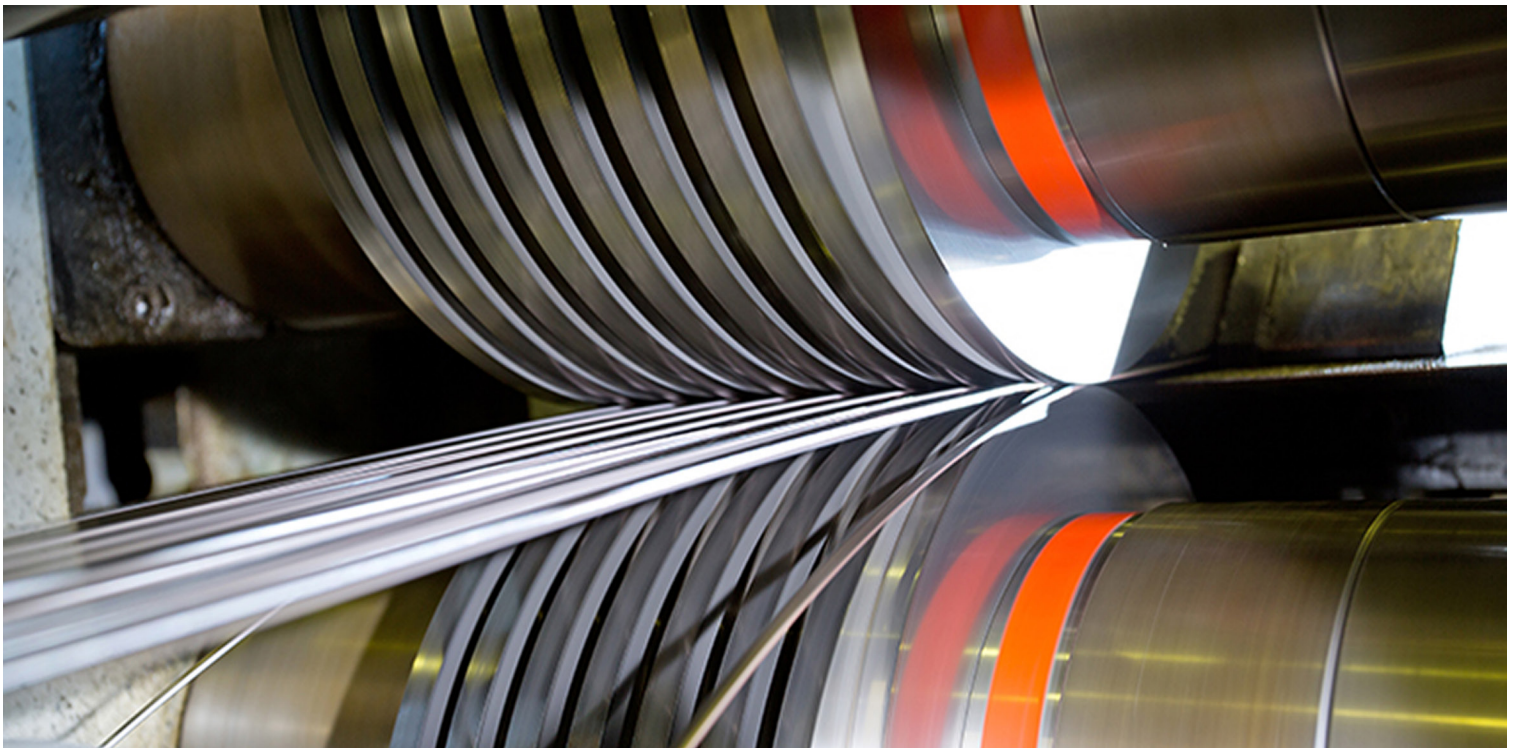
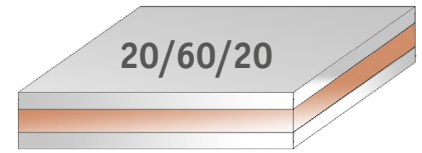
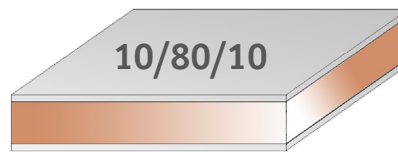
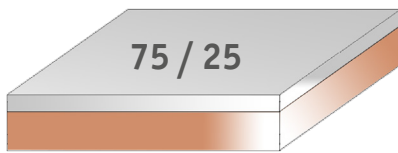
⁽¹⁾ Properties can vary depending on finish thickness

⁽²⁾ Parallel to strip direction



Electrical Properties @ 75°F (typical properties)	Ni/Cu 25/75 Ratio		Ni/Cu/Ni 10/80/10 Ratio		Ni/Cu/Ni 20/60/20 Ratio	
Conductivity - % IACS ⁽¹⁾	79.0%		84.0%		70.0%	
Resistivity - Ω /CMF ⁽¹⁾ (Ω -m)	13.1	(0.022)	12.4	(0.021)	14.8	(0.025)

Typical Ratios



Engineered Materials Solutions
EMSA
39 Perry Avenue
Attleboro, MA 02703
Phone: +1 508 342 2100
Fax: +1 508 342 2125
E-mail: solutions@emsclad.com

Engineered Materials Solutions
EMSH
600 Valley Road
Hamburg, PA 19526
Phone: +1 610 562 3841
Fax: +610 562 5800
E-mail: solutions@emsclad.com

Engineered Materials Solutions
EMSC
Italian Industrial Park
Baoying, Jiangsu, 225800 PR China
Phone: +86 514 8891 6888
Fax: +86 514 8891 6889
E-mail: solutions@emsclad.com

