

Material Attributes

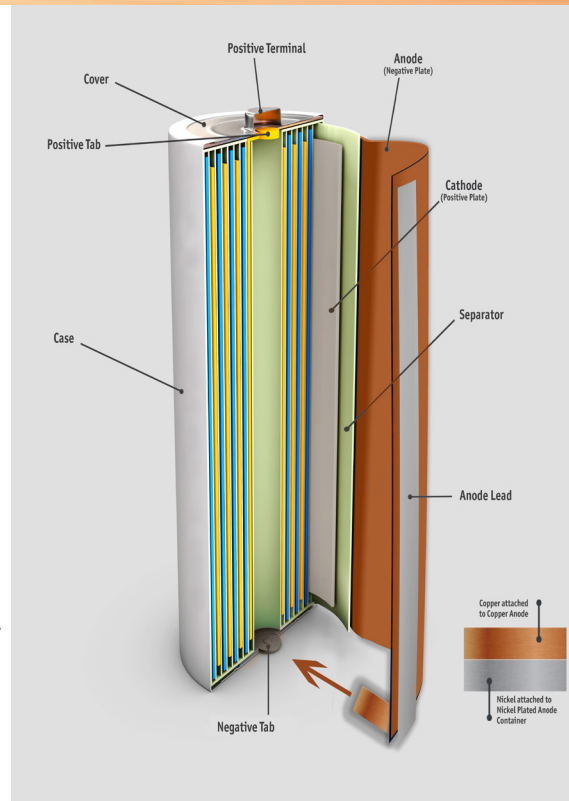
- Good brazeability and weldability compared to copper
- Excellent electrical and thermal conductivity
- Excellent contact corrosion resistance
- Lower cost compared to pure Nickel
- Excellent joining characteristics

Description

EMS Designation	PC830 or PC831
Composition Ratio	N02201/C10200 or N02201/C10200/N02201
	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	0.0032 - 0.024" (0.08 - 0.60 mm)
Width	0.10 - 12.00" (2.5 - 305mm)



Physical Properties (typical properties)	Ni/Cu 25/75	Ni/Cu/Ni 12.5/75/12.5	Ni/Cu/Ni 25/50/25
Density: Lbs/in³ (g/cm³)	0.323 (8.94)	0.323 (8.94)	0.322 (8.91)
Yield Stress: Ksi (MPa)	13.8 (95)	12.3 (85)	15.2 (105)
Tensile Strength: Ksi (MPa)	36.3 (250)	35.5 (245)	42.8 (295)
Elongation %	15	16.5	22
Elastic Modulus: Msi (GPa)	20.3 (140)	20.3 (140)	23.5 (162)
CTE: (68 to 212°F): μin/in/°F (μm/m/°C)	8.7 (15.7)	8.7 (15.7)	8.1 (14.6)

Ni/Cu Clad

Joining Solution for Li-Ion Battery Packs



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Materials Solutions**

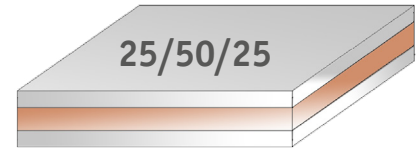
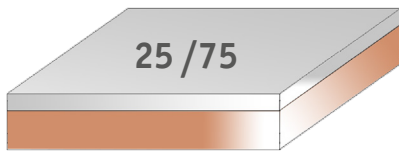
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Electrical Properties @ 68°F (typical properties)	Ni/Cu 25/75 Ratio		Ni/Cu/Ni 12.5/75/12.5 Ratio		Ni/Cu/Ni 25/50/25 Ratio	
Conductivity - % IACS ⁽¹⁾	76.8%		76.3%		57.6%	
Thermal Conductivity⁽²⁾: BTU-ft/h-ft²- °F (W/mK)	187 (324)		186 (322)		140 (243)	
Resistivity - Ω/CMF⁽¹⁾ (Ω-m)	13.5	(0.0224)	13.6	(0.0226)	18.0	(0.0297)

⁽¹⁾ Properties can vary depending on finish thickness

⁽²⁾ Parallel to strip direction

Typical Ratios



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