UNS Wrought and Cast Alloy – Registration Request Form

Email filled-out form to Marcus Elmber, registrar@unscopperalloys.org

Requested Alloy # C _____ **Date:** _____ **Requestor:** _____

(add a suggested identification for preliminary consideration)

Company: _____

Contact Representative: _____

Street Address: _____

City: _____ State: _____ Zip code: _____ Country: _____

E-mail: _____ Phone: _____ Fax: _____

CHEMICAL COMPOSITION

(in percent, maximum, unless shown as a range or a minimum.) (include all significant Elements and appropriate composition range)

Cu	Pb	Sn	Zn	Fe	P	Ni	Mn	Si

Other Elements _____

(Note: Maximum number of included elements not to exceed 14.)

Cu + sum of named elements _____ **% min.**

MECHANICAL PROPERTIES

(Cut and paste this section to present multiple product forms and/or tempers.)

Alloy Form ☐ Strip ☐ Sheet ☐ Rod ☐ Bar ☐ Wire ☐ Forging

Temper Code _____ **Temper Description** _____

(as stated in ASTM B601, such as O10 Cast and Annealed)

		US Customary units		SI Units	
Tensile Strength: Typical			ksi		MPa
	Min		ksi		MPa
	Max		ksi		MPa
Yield Strength					
[type _____]: Typical			ksi		MPa
	Min		ksi		MPa
	Max		ksi		MPa
Elongation			ksi		MPa
Hardness [type _____]			ksi		MPa
Shear Strength			ksi		MPa
Compression Strength			ksi		MPa
Impact Strength			ksi		MPa
Fatigue Strength			ksi		MPa

PHYSICAL PROPERTIES

	US Customary units		SI Units	
Melting Point (Liquidus)		°F		°C
(Solidus)		°F		°C
Density		lb/cu in. at 68°F		gm/cu cm at 20°C
Specific Gravity				
Electrical Resistivity		ohm.cmil/ft at 68°F		microhm-cm at 20°C
Electrical Conductivity		% IACS at 68°F		Siemens/cm at 20°C
Coefficient of Thermal Expansion		10^{-6} per °F (68 - 572°F)		10^{-6} per °C (20°C - 300°C)
Magnetic Permeability				
Thermal Conductivity		Btu /sq ft/ft/hr/°F at 68°F		W/m °K at 20°C
Modulus of Elasticity in Tension		ksi		MPa
Modulus of Rigidity		ksi		MPa
Poisson's Ratio				

FABRICATION PRACTICES

Joining Technique	Suitability				
Soldering	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
Brazing	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
Oxyacetylene Welding	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
Gas Shielded Arc Welding	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
Coated Metal Arc Welding	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
Resistance Welding—Spot	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
—Seam	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
—Butt	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
Capacity for Being Cold Worked	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended
Capacity for Being Hot Formed	◯ Excellent	◯ Good	◯ Fair	◯ Poor	◯ Not recommended

Hot Forgability Rating [ ] % (Forging Brass = 100)

Machinabiliy Rating [ ] % (C36000 Free Cutting Brass = 100)

Typical Forms [ ]

Typical Uses [ ]

Typical Reasons for Uses [ ]

Intended Applicable Standards (if applicable) [ ]

CASTING CHARACTERISTICS

Patternmakers Shrinkage ([ ] in. fractional dimension), Shrinkage during Aging ([ ] in. fractional dimension)

Shrinkage during Freezing ([ ] in. fractional dimension), Effect of Section Size (◯Large ◯Medium ◯Small)

Shrinkage (◯Large ◯Medium ◯Small), Casting Yield (◯ Large ◯Medium ◯Small)

Drossing (◯Large ◯Medium ◯Small), Fluidity (◯ Large ◯Medium ◯Small)

Gassing (◯Large ◯Medium ◯Small)