



BENEFITS

Good machinability, unique Federalloy technology enables production engineers to tailor any Federalloy alloy to their own requirements, good polishing and plating characteristics, better castability at lower temperatures which results in lower costs to end users, assures that elongation approximates its leaded alloy counterparts, “no burn-in” feature enables Federalloy castings to have more definition which results in crisper markings and more legible identification numbers, superior microstructural characteristics, improved finish requires less shot blast which reduces cleaning costs and shortens cycle times.

TYPICAL USES

Faucets, pump components, pipe fittings, plumbing goods, water pump impellers, housings and small gears

Bronze Family: Bismuth Tin Bronze
Type: Brass, bronze, or copper alloy
Solids: ½” to 10” OD
Tubes: 1⅛” to 9” OD
Rectangles: Up to 15” wide
Shape/Form: Semi-finished; mill stock or near net shapes; anode; bar stock; billet/bloom; squares; hex; plate; profile or structural shape; flats/ rectangular bar

CHEMICAL COMPOSITION

Alloy	Cu%	Sn%	Pb%	Zn%	Fe%	Ni%	Sb%	P%	S%	Al%	Mn%	Si%	Bi%
C89835	85.00-89.00	6.00-7.50	0.05	2.00-4.00	0.20	1.00	0.35	0.10	0.08	0.005	N/A	0.005	1.75-2.75

Note: Single values represent maximums.

MACHINABILITY

Alloy	Machinability Rating	Density (lb/cu in.)
C89835	70	0.321

MECHANICAL PROPERTIES

Tensile Strength, min	Yield Strength, at .5% extension under load min	Elongation in 2 in. or 50 mm min, %	Brinell Hardness, min	Remarks
ksi	ksi			
30	14	6	65	