

# LEADED RED BRASS C95500

CDA NUMBER	C95500	
Common Name		
<b>COMPOSITION PERCENT</b>	<b>Min</b>	<b>Max</b>
Copper (Cu)		Rem.
Tin (Sn)		
Lead (Pb)		0.09
Zinc (Zn)	.5	2
Iron (Fe)	3	5
Antimony (Sb)		
Nickel (Ni)	3.5	5.5
Sulphur (S)		
Phosphorous (P)		
Aluminum (Al)	.5	2
Maganese (Mn)		
Silicon (Si)	.5	2
Cu + Sum of Named Elements, 99.7% min		
<b>NEAREST APPLICABLE CASTING STANDARDS</b>		
ASTM (B Series)		
SAE (J Series)		
Federal (QQ-C- Series)		
Military (Mil-C- Series)		
<b>TYPICAL PROPERTIES</b>	<b>Typ</b>	<b>Min</b>
Tensile Strength (ksi)	86	
Yield Strength (.5% extension under load) (ksi)	62	
Elongation (2 inch gauge length) (%)	8	
Proportional Limit (ksi)		
Modulus of Elasticity (ksi)	19000	
Hardness (Brinell) (HB @ 500kg)	196	
Machinability (% of free cutting brass)	50	
Fatigue Strength (10 <sup>8</sup> cycles) (ksi)		
Impact Strength (Charpy) (ft-lb)		
Impact Strength (Izod) (ft-lb)	0.0	
Shear Strength (ksi)		
Compressive Strength (0.001 in. set/in.) (ksi)		
Compressive Strength (0.010 in. set/in.) (ksi)		
Compressive Strength (0.100 in. set/in.) (ksi)		
Creep Strength (0.00001% per hour) (ksi)		
Melting Range (Liquidus-Solidus)(F)		
Coefficient of Thermal Expansion (per F @ 68-400F)	.0000083	
Thermal Conductivity (Btu/sq.ft/ft.hr/F @ 68F)		
Specific Heat (Btu/lb/F @ 68F)	.09	
Electrical Conductivity (% IACS @ 68F)	10	
Density (lb/cu.in. @ 68F)	.300	
Pouring Temperature (Light Castings) (F)		
Pouring Temperature (Heavy Castings) (F)		
Patternmakers Shrinkage (in/ft)	3/16	
Drossing	Medium	
Gassing	Low	
Fluidity	Medium	
Shrinkage	High	
Casting Yield	Low	
<b>Corrosion Resistance:</b> Very good for hydrocarbons, and general corrosion.		
<b>Applications:</b> Low-pressure valve bodies, water pump parts and impellers, electrical hardware, boat hardware, plumbing goods, valve trim, fire equipment, small gears, ornamental fixtures, hydraulic pressure castings, injectors, gas and vapor valves and fittings, hydraulic-pressure castings.		

Always use the design principles outlined on page two of this information sheet or at our website.

Consult your foundry early in the design process.

St. Paul Brass and Aluminum does not currently pour this alloy, but will consider it if purchased volumes justify the inventory.



St. Paul  
Brass and Aluminum  
Foundry