



# ALLOY XP77 (CDA 66913)

**Copper: 73%, Mn 15%, Zn 10%, Fe: 1%, Ni 2.5% max**

XP77 is a high strength modified manganese bronze alloy developed by PMX Industries, which utilizes alloying elements that create strength with lower metal value and reduced density which means you get 6-9% more parts per unit of material than with traditional copper alloys. The alloy has a silver color which can be substituted for stainless steel, and higher metal value copper alloys like 735, 752 and copper-nickels. The alloy has good formability in standard tempers and is RoHS compliant making it an excellent choice for terminals, fuse components as well as flatware, tokens, coins, architectural interior components, railing, cabinetry, shelving, tubular assemblies and other applications where a brushed nickel or a silver color is desirable.

PMX also offers the alloy in a special temper for lead free key stock and as a casting master alloy.

The alloy has excellent, non-directional bend performance in rolled strip through H040 temper allowing you to achieve better part layout and as a result better scrap rates than competing alloys which display a strong bad-way direction anisotropy.

The alloy can be readily cleaned and activated with traditional electroplating systems, has good plating adhesion, and has Class I-II dip solderability.

Metal value savings of 10-30% are possible when comparing XP77 metal value costs and lower density to traditional copper alloys containing up to 18% nickel or white copper-nickel alloys having 10-30% nickel.

Strip, coil, tube, sheet, plate, bar and wire forms are available fabricated to request.

Contact your PMX representative at 1-800-531-5268 or email us at sales@ipmx.com.

Material Physical Properties	
Density:	0.295 lb/cu.in.
Elastic Modulus:	14,900,000 psi
Electrical Conductivity	3.5% IACS
Machinability/tapping	Good
Welding/Brazing	Good/Excellent

Temper	Nom.Tensile Strength (ksi)	Nom. Yield Strength(ksi)	Nom. Elong	90° GW/BW Bends
Soft	67	45	40	0/0
H010	75	65	23	0/0
H020	84	77	12	0/0
H040	92	87	3	0.7/0.7
H060	108	105	2	1.2/1.5

**Casting tensile (64 ksi)**

**Tube tempers: Similar to strip**

**Wire tempers: Please inquire**

*Details released herein are believed to be accurate at the time of issue and are considered for general information only. Use of this information is to be at the consumer's discretion.*