



# ARCOTECH

## AL-377 (Pb-Brass) ROLLED PRODUCTS

CHEMICAL COMPOSITION, %	
Cu	58-62
Pb	1.0-2.0
Zn	Rem.
Ni	≤ 0.3
Fe	≤ 0.2

ALLOY DESIGNATIONS	
UNS	37700
EN	ZnCu39Pb2
JIS	C3771
BS	CZ120

### COIL SHEET SPECIFICATIONS

Thickness (mm)	0.30- 3.5
Width (mm) *	6.00 - 406
Inner Diameter (mm)	100-150-200-300-400-500
Coil Weight (Kg/mm width)	1.0- 4.0
Sheet Length (m)	0.50 – 3.00

\*Note: Min. and Max. width depends on thickness of the strip

### CHARACTERISTICS

Al-377 is commonly known as forging brass. This is most used alloy for machining operations. This alloy has excellent hot working and forging properties. Cold forming is only possible to a minor extent.

### MECHANICAL PROPERTIES

Temper		Hardness , HV	Tensile Strength MPa	Elongation % Min.
1/2 Hard	H02	110-140	≥420	10
Hard	H04	140-165	≥490	5
Extra Hard	H06	165-190	≥525	3

### PHYSICAL PROPERTIES

#### TYPICAL VALUES IN ANNEALED TEMPER AT 20° C

Density (g/cm <sup>3</sup> )	Electrical Conductivity (% IACS)	Thermal conductivity (W/m.K)	Modulus of Elasticity (GPa)	Specific Heat (J/kg.K)
8.45	24	117	102	377

**ARCOTECH LTD**

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## AL-377 (Pb-Brass) ROLLED PRODUCTS

### Fabrication Properties

Capacity Being Cold Worked	Fair
Machinability	Excellent
Capacity for Being Electroplated	Excellent
Capacity for Being Hot Dip Tinned	Excellent
Soft Soldering	Fair
Resistance Welding	Fair
Gas Shielded Arc Welding	Less suitable
Laser Welding	Fair

### CORROSION RESISTANCE

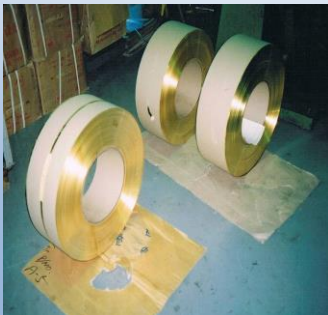
AL-377 is good resistance to water, water vapor, different saline solutions, many organic liquids land, sea and industrial atmosphere.

Under certain circumstances a form of corrosion called dezincification can occur.

This alloy also tend to stress corrosion cracking under stressed condition in presence of amine ammonia salts, however an heat treatment can help to avoid stress corrosion cracking.

### Packaging

Standard seaworthy packaging or as per specific requirements of customer.



### TYPICAL APPLICATIONS

- Keys
- Precision mechanical components
- Watch and clocked parts
- Milled parts

AL-377 conform ROHS Directive

This data is general technical product information. Binding technical features are subject to the contract.

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