



**Adinath**  
Create, Enhance & Sustain

## IS4170:LEAD FREE BRASS

### Specification Sheet

#### DESCRIPTION

IS 4170 is a lead free material which is however quite suitable for machining due to its structural constitution. IS 4170 can be used as a cost-effective replacement for conventional lead-containing machining brass provided that it must not meet high requirements as regards mechanical properties and corrosion resistance.



#### CHEMICAL COMPOSITION

Element	Cu	Fe	Zn	Pb	Oi
Min (%)	59.00	-	Balance	-	-
Max (%)	62.00	0.10		0.75	0.30

Note: Ni includes Co; Cu+ named elements >= 99.5%; Unless otherwise noted, single values represent maximums.

#### SHAPE



**SOLID ROUND BARS**  
Size Range :  
Dia 8 mm up to 120 mm



**SOLID HEX BARS**  
Size Range :  
A/F 10 mm up to 100 mm



**SOLID SQUARE BARS**  
Size Range :  
A/F 10 mm up to 90 mm



**SOLID RECTANGLE BARS**  
Size Range :  
A/F 10 x 12 mm up to 100 x 50 mm



**HOLLOW BARS**  
**Outer Diameter :** In Round, Hex & Square  
**Size Range :** 30 mm up to 120 mm  
**Inner Diameter :** Round  
**Size Range :** 20 mm up to 80 mm



**PROFILES & SECTIONS**  
As per Customers' Drawing



**BAR LENGTH**  
Length : Up to 4 Meters.  
Delivery Condition : As Extruded or Cold Drawn.

#### STRAIGHT KNURLING



#### CROSS KNURLING



Straight Knurling & Cross Knurling will be available upon shape & size Feasibility of Brass Rod

# IS4170:LEAD FREE BRASS



## MECHANICAL PROPERTIES

Round (Dia)					
Range (mm)	UTS Min (KG/MM <sup>2</sup> )	PS Min (N/MM <sup>2</sup> )	Elongation Min (%)	Hardness (HRB)	
Over 2 to 75 Inclusive	35	-	25	-	
HEX (A/F)					
Range (mm)	UTS Min (KG/MM <sup>2</sup> )	PS Min (N/MM <sup>2</sup> )	Elongation Min (%)	Hardness (HRB)	
Over 3 to 70 Inclusive	35	-	25	-	
Square (A/F)					
Range (mm)	UTS Min (KG/MM <sup>2</sup> )	PS Min (N/MM <sup>2</sup> )	Elongation Min (%)	Hardness (HRB)	
Over 3 to 60 Inclusive	35	-	25	-	
Rectangle					
Range (mm)	UTS Min (KG/MM <sup>2</sup> )	PS Min (N/MM <sup>2</sup> )	Elongation Min (%)	Hardness (HRB)	
Thickness	3 to 50 Inclusive	35	-	25	-

## PACKING



-  PVC Pipe Packing for Small Diameter Rods.
-  Hessian Cloth Packing.
-  Wooden Box Packing as per Customer requirements.

## FABRICATION PROPERTIES

Soldering	Brazing	Machinability Rating
Excellent	Excellent	40

## TYPICAL USES

Product Category	Product
Architecture	Grillwork, Handrails.

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Product Category	Product
Builders Hardware	Finish Hardware, Hinges, Kick Plates, Locks, Push Plates, Stencils.
Fasteners	Eyelets, Fasteners, Grommets, Pins, Rivets, Screws.
Industrial	Bead Chain, Chain, Springs.

## VALUE ADDED SERVICES

AEPL manufactures and supplies Copper Alloys Extruded Bars to Domestic as well as International Markets. Our customer base has a key advantage since our Foundries, Laboratories, Extrusion Mill, Shell Mouldings and CNC Machine shop are all located on a single site, which eliminates waste and allows excellent quality control at each stage. Our ability to reclaim swarf and machined chips allows us to offer competitive pricing for the parts that we either extrude or cast.

### Casting Range



25 Grams to 10 Kgs

### Forging Sizes



50 Grams to 6 Kgs

### Machining Sizes



1 mm to 200 mm

### CONNECT WITH US Adinath Extrusion Pvt. Ltd.

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