



**GRAVITY CAST PVT. LTD.**  
**GRAVITY GROUP OF COMPANIES**

## Material - SAE AMS 4590

### Standard Specification for Extrusions, Nickel-Aluminum Bronze Alloy

Group - Non-Ferrous Copper Alloy

Sub Group - SAE AMS Extrusions, Nickel-Aluminum Bronze Alloy

Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Aluminium	Al %	10.000 - 11.000	Hardening and Tempering	
Cobalt	Co %	0.200 max.		
Chromium	Cr %	0.050 max.		
Iron	Fe %	4.000 - 5.500		
Manganese	Mn %	1.500 max.		
Ni + Co	Ni% + Co%	4.200 - 6.000		
Lead	Pb %	0.030 max.		
Tin	Sn %	0.250 max.		
Zinc	Zn %	0.300 max.		
Copper	Cu %	Balance		
-	-	-	<b>Mechanical Properties</b> Tensile Strength in Mpa      896 - 931 Yield Strength in Mpa      621 - 689 Elongation in %      6 min. Reduction of Area in %      - Hardness in HRB      26 min. Impact in Joule      -	
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
C63020	UNS	USA	Rod, Bar, Tube and Shapes
B150 C63020	ASTM	USA	Rod, Bar and Shape
SB-150 C63020	ASME	USA	Rod, Bar and Shape
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email [marketing@gravitycastindia.com](mailto:marketing@gravitycastindia.com)**

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.

**ONE STOP SOLUTION FOR METAL PARTS**