



## Material - DIN 2.1160

**Standard Specification for Copper and Copper Alloy Rod for Free Machining Purpose**

**Group - Non Ferrous Copper Alloys**

**Sub Group - DIN 2.1160 Copper and Copper Alloy Rod for Free Machining Purpose**

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

**Grade Belongs to the Industry - Rod**

Chemical Composition			Heat Treatment	
Phosphorus	P %	0.003 - 0.012	As Raw or Solution Heat Treated	
Lead	Pb %	0.700 - 1.500		
Other	Ot %	0.100 max.		
Copper	Cu %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
			Mechanical Properties	
			Tensile Strength in Mpa	250 min.
			Yield Strength in Mpa	180 min.
			Elongation in %	5 min.
			Reduction of Area in %	-
			Hardness in BHN	80 - 130
			Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
EN 12164 CuPb1P	DIN	Germany	Rod
CuPb1P	ONORM	Australia	Rod
CW113C	ONORM	Australia	Rod
CuPb1P	AFNOR NF	France	Rod
CW113C	AFNOR NF	France	Rod
CuPb1P	SFS	Finland	Rod
CW113C	SFS	Finland	Rod

**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.