



## Material - MSZ C 1

### Standard Specification for Wheel Bodies for Rail Vehicles

Group - Ferrous Mild Steel Alloys

Sub Group - MSZ C 1 Wheel Bodies for Rail Vehicles

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

Grade Belongs to the Industry - Steel

Chemical Composition			Heat Treatment			
Carbon	C %	0.220 max.	Normalising or Annealing or Hardening + Tempering			
Silicon	Si %	0.500 max.				
Manganese	Mn %	1.200 max.				
Phosphorus	P %	0.040 max.				
Sulphur	S %	0.040 max.				
Chromium	Cr %	0.300 max.				
Nickel	Ni %	0.300 max.				
Molybdenum	Mo %	0.500 max.				
Vanadium	V %	0.050 max.				
Copper	Cu %	0.300 max.				
Iron	Fe %	Balance	<th colspan="2">Mechanical Properties</th>		Mechanical Properties	
-	-	-	Tensile Strength in Mpa	450 min.		
-	-	-	Yield Strength in Mpa	240 min.		
-	-	-	Elongation in %	22 min.		
-	-	-	Reduction of Area in %	35 min.		
-	-	-	Hardness in BHN	-		
-	-	-	Impact in Joule	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.8872	DIN	Germany	Steel
16 Mo 5	STAS	Romania	Plate
245	BS	British	Casting
J12523	UNS	USA	Casting
FS 12 MD 4	AFNOR NF	France	Wire, Rod and Coil
G18Mo5	UNI	Italy	Casting
A356 2	ASTM	USA	Casting

**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)**

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