



Material - MSZ KL 10

Standard Specification for Seamless Steel Tubes for Pressure Purposes

Group - Ferrous Mild Steel Alloys

Sub Group - MSZ KL 10 Seamless Steel Tubes for Pressure Purposes

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

Grade Belongs to the Industry - Steel and Tube

Chemical Composition			Heat Treatment	
Carbon	C %	0.090 - 0.170	Normalising + Tempering	
Silicon	Si %	0.150 - 0.400		
Manganese	Mn %	0.450 - 0.750		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.300 max.		
Chromium	Cr %	0.500 - 0.750		
Molybdenum	Mo %	0.400 - 0.600		
Nickel	Ni %	0.035 max.		
Vanadium	V %	0.200 - 0.350		
Niobium	Nb %	0.010 - 0.060		
Copper	Cu %	0.350 max.	Mechanical Properties Tensile Strength in Mpa 470 - 660 Yield Strength in Mpa 280 min. Elongation in % 16 min. Reduction of Area in % - Hardness in BHN - Impact in Joule 50 J @ RT	
Nitrogen	N %	0.015 max.		
Titanium	Ti %	0.020 - 0.060		
Zirconium	Zr %	0.015 - 0.060		
Iron	Fe %	Balance		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.7715	EN	European Union	Steel and Tube
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1.7715	DIN	Germany	Steel and Tube
14MoV63	DIN	Germany	Steel and Tube
13MoCrV6	UNE	Spain	Sheet, Plate and Strip
660-460	BS	British	Sheet and Forging
15128	CSN	Czech Republic	Steel and Tube

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

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