



Material - UNS J42220

Standard Specification for Alloy Steel Casting

Group - Ferrous Mild Steel Alloys

Sub Group - UNS J42220 Alloy Steel Casting

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.220 max.	Normalising or Annealing or Hardening + Tempering	
Silicon	Si %	0.600 max.		
Manganese	Mn %	0.500 - 0.800		
Phosphorus	P %	0.025 max.		
Sulphur	S %	0.025 max.		
Chromium	Cr %	1.350 - 1.850		
Molybdenum	Mo %	0.350 - 0.600		
Nickel	Ni %	2.500 - 3.500		
Vanadium	V %	0.030 max.		
Copper	Cu %	0.500 max.		
Iron	Fe %	Balance	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	620 min.
-	-	-	Yield Strength in Mpa	450 min.
-	-	-	Elongation in %	22 min.
-	-	-	Reduction of Area in %	40 min.
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	41 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.6783	EN	European Union	Casting
A757 Grade E1Q	ASTM	USA	Casting
G19 NiCrMo 12-6	EN	European Union	Casting
G19 NiCrMo 12-6	DIN	Germany	Casting
A757 Grade E1Q	ASTM	USA	Casting
A757 Grade E2N1, E2Q1	ASTM	USA	Casting
A757 Grade E2N1, E2Q2	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

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