



## Material - BDS GX12CrMoVNbN9-1

### Standard Specification for Steel Castings for Pressure Purposes

Group - Ferrous Stainless Steel Alloys

Sub Group - BDS GX12CrMoVNbN9-1 Steel Castings for Pressure Purposes

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.100 - 0.140	Normalizing or Quenching or Solution Annealing	
Silicon	Si %	0.200 - 0.500		
Manganese	Mn %	0.300 - 0.800		
Phosphorus	P %	0.020 max.		
Sulphur	S %	0.010 max.		
Chromium	Cr %	8.000 - 9.500		
Molybdenum	Mo %	0.850 - 1.050		
Nickel	Ni %	0.400 max.		
Nitrogen	N %	0.030 - 0.070		
Vanadium	V %	0.180 - 0.250		
Niobium	Nb %	0.060 - 0.100	Mechanical Properties	
Aluminium	Al %	0.020 max.	Tensile Strength in Mpa	600 - 750
Iron	Fe %	Balance	Yield Strength in Mpa	460 min.
-	-	-	Elongation in %	15 min.
-	-	-	Reduction of Area in %	-
			Hardness in BHN	-
			Impact in Joule	27 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
GX12CrMoVNbN9-1	BS	British	Plate, Tubes and Forging
GX12CrMoVNbN9-1	ONORM	Australia	Casting
GX12CrMoVNbN9-1	NBN	Belgium	Casting
GX12CrMoVNbN9-1	CSN	Czech Republic	Casting
GX12CrMoVNbN9-1	EN	European Union	Casting
GX12CrMoVNbN9-1	SFS	Finland	Casting
GX12CrMoVNbN9-1	DIN	Germany	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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