GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - BS EN 10302 1.4903 (X10CrMoVNb9-1)

Standard Specification for Creep Resisting Steel, Nickel and Cobalt Alloys

Group - Ferrous Stainless Steel Alloys

Sub Group - BS EN 10302 1.4903 (X10CrMoVNb9-1) Creep Resisting Steel, Nickel and Cobalt Alloys

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

Grade Belongs to the Industry - Steel

Chemical Composition		
Carbon	C %	0.080 - 0.120
Silicon	Si %	0.500 max.
Manganese	Mn %	0.300 - 0.600
Phosphorus	P %	0.025 max.
Sulphur	S %	0.015 max.
Nitrogen	N %	0.030 - 0.070
Aluminium	Al %	0.030 max.
Chromium	Cr %	8.000 - 9.500
Molybdenum	Mo %	0.850 - 1.050
Niobium	Nb %	0.060 - 0.100
Nickel	Ni %	0.400 max.
Vanadium	V %	0.180 - 0.250
Iron	Fe %	Balance
-	-	-
-	-	-

Heat Treatment
As-Raw or Quenching & Tempering

Mechanical Properties	
Tensile Strength in Mpa	620 - 850
Proof Strength in Mpa	450 min.
Elongation in %	-
Reduction of Area in %	20 min.
Hardness in HB	-
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
J80490	UNS	USA	Steel
J81090	UNS	USA	Steel
A 182 F 91	ASTM	USA	Steel and Pipe
A 199 Grade T91	ASTM	USA	Steel
SA-199 Grade T91	ASME	USA	Steel and Tubing
SA-213 Grade T91	ASME	USA	Steel and Tubing
9329-2 X 10 CrMoNiVNb 91	ISO	International	Steel and Tubing

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