GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-541 Grade 11 Class 4

Standard Specification for Quenched and Tempered Carbon and Alloy Steel Forgings for Pressure Vessel Components

Group - Ferrous Mild Steel Alloys

Sub Group - ASME SA-541 Grade 11 Class 4 Quenched and Tempered Vacuum-Treated Carbon and Alloy Steel Forgings for Pressure Vessels

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

Grade Belongs to the Industry - Forging

Chemical Composition		
Carbon	C %	0.100 - 0.200
Manganese	Mn %	0.300 - 0.800
Phosphorus	P %	0.025 max.
Sulphur	S %	0.025 max.
Silicon	Si %	0.500 - 1.000
Nickel	Ni %	0.500 max.
Chromium	Cr %	1.000 - 1.500
Molybdenum	Mo %	0.450 - 0.650
Vanadium	V %	0.050 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Quenching & Tempering

Mechanical Properties	
Tensile Strength in Mpa	550 - 725
Yield Strength in Mpa	345 min.
Elongation in %	18 min.
Reduction of Area in %	38 min.
Hardness in HB	-
Impact in Joule	20 @ RT

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K11572	UNS	USA	Steel
A 336 Grade F11A	ASTM	USA	Steel and Forging
A 541 Grade 2 Class 1	ASTM	USA	Steel and Forging
A 336 Grade F11B	ASTM	USA	Steel and Forging
A 336 Grade F12	ASTM	USA	Steel and Forging
SA-336 Grade F11 Class 1	ASME	USA	Steel and Forging
SA-336 Grade F11 Class 2	ASME	USA	Steel and Forging

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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