GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-541 Grade 4N Class 1

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 4N Class 1 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 %	0.230 max.
Manganese	Mn %	0.200 - 0.400
Phosphorus	P %	0.025 max.
Sulphur	S %	0.025 max.
Silicon	Si %	0.300 max.
Nickel	Ni %	2.800 - 3.900
Chromium	Cr %	1.250 - 2.000
Molybdenum	Mo %	0.400 - 0.600
Vanadium	V %	0.030 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Quenching & Tempering

Mechanical Properties	
Tensile Strength in Mpa	725 - 895
Yield Strength in Mpa	585 min.
Elongation in %	18 min.
Reduction of Area in %	48 min.
Hardness in HB	-
Impact in Joule	47 @ RT

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K42343	UNS	USA	Steel
A 541 Grade 4N Class 2	ASTM	USA	Steel and Forging
A 541 Grade 4N Class 3	ASTM	USA	Steel and Forging
A 541 Grade 5 Class 1	ASTM	USA	Steel and Forging
A 541 Grade 5 Class 2	ASTM	USA	Steel and Forging
A 541 Grade 4N Class 1	ASTM	USA	Steel and Forging
A 508 Grade 4N Class 1	ASTM	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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