



TAMBOLI CASTINGS LIMITED

ISO 9001 : 2015, EN 9100D : 2018, IATF 16949 : 2016, ISO 14001: 2015, ISO 45001 : 2018, PED & AD 2000 - Merkblatt W0, NORSOK M-650 & EN 15085-2 BY TUV-NORD, ECOVADIS



Material - ASTM A732 8Q

Standard Specification for Castings, Investment, Carbon and Low Alloy Steel for General Application, and Cobalt Alloy for High Strength at Elevated Temperatures

MATERIAL DATASHEET

GROUP

Ferrous Mild Steel Alloys

SUB GROUP

ASTM A732 / A732M

INDUSTRY

Investment Casting

ASTM A732 Grade 13Q is a nickel-chromium-molybdenum alloy investment cast steel offering an excellent combination of strength, toughness, and hardenability. The balanced alloy composition enhances impact resistance, fatigue performance, and wear resistance, making it suitable for demanding engineering applications. After quench and temper heat treatment, the material provides reliable mechanical properties for valves, pumps, oil & gas equipment, automotive components, heavy machinery, and industrial systems requiring superior strength and dependable long-term performance.



CHEMICAL COMPOSITION

ELEMENT	SYMBOL	COMPOSITION
Carbon	C %	0.350 – 0.450
Silicon	Si %	0.200 – 0.800
Manganese	Mn %	0.700 – 1.000
Phosphorus	P %	0.040 max.
Sulphur	S %	0.045 max.
Chromium	Cr %	0.800 – 1.100
Nickel	Ni %	0.500 Max
Molybdenum	Mo %	0.150 – 0.250
Copper	Cu %	0.500 Max
Tungsten	W	0.10
Other Elements		1.000 Max
Iron	Fe %	Balance



MECHANICAL PROPERTIES

PERFORMANCE SPECIFICATIONS

Tensile Strength **1241**
Minimum Value MPa

Yield Strength **1000**
Minimum Value MPa

Elongation **5**
Minimum Value %

✓ **HEAT TREATMENT**
Normalising/Harding & Tempering



INDUSTRY APPLICATIONS

Industrial valves



Pump casings



Petrochemical plants



Steam service



Piping



DISCLAIMER: All information in this datasheet is indicative only and is not intended to be a substitute for the full specification. It provides typical values for comparison between metal alloy options rather than a definitive statement of mechanical performance. Values may vary with temperature, product type, and application. This data does not constitute any guarantee of properties.

Tamboli Castings Limited

Bhavnagar, Gujarat, India

Phone: +91 278 2541000

Email: info@tambolicastingslimited.com