

Certificate of Conformance



Stainless Steel (Austenitic)

Typical Chemical Composition

Grade →→→	316	316L	304	304L
Chemical	Percent (%) Max.	Percent (%) Max.	Percent (%) Max.	Percent (%) Max.
Carbon (C)	0.070	0.030	0.070	0.030
Silicon (VMQ)	1.000	1.000	1.000	1.000
Manganese (Mn)	2.000	2.000	2.000	2.000
Phosphorus (P)	0.045	0.045	0.045	0.045
Sulfur (S)	0.015	0.015	0.015	0.015
Nickel (Ni)	10/13	10/15	8.0/10.5	8.0/12.0
Chromium (Cr)	16.5/18.5	16.5/19.0	17.5/19.5	17.5/20.0
Molybdenum (Mo)	2/3	2/3	N/A	N/A
Nitrogen (N)	0.110	0.110	0.110	0.110
Ferrite (Fe)	Balance	Balance	Balance	Balance

Typical Mechanical Properties

Property	Value	Value	Value	Value
Tensile Strength, MPa	560/700	560/700	540/750	520/700
Compression Strength, MPa	170	170	170	170
Proof Stress 0.2%, MPa Max.	240	240	230	220
Elongation A5, % Min.	40	40	45	45
Hardness Rockwell B, Points Max.	79	79	80	79

Typical Physical Properties

Property	Value	Value	Value	Value
Density, kg/dm ³	8.0	8	7.9	7.9
Melting Point, °C	1400	1400	1400	1400
Modulus of Elasticity @ 20°C, GPa	200	200	200	200
Electrical Resistivity @ 20°C, [(Ωxmm ²)/m]	0.75	0.75	0.73	0.73
Thermal Conductivity @ 20°, [W/(mxK)]	15	15	15	15
Thermal Expansion @ 20°C÷200°C, 10 ⁻⁶ xK ⁻¹	16.5	16.5	16.5	16.5
@ 20°C÷400°C, 10 ⁻⁶ xK ⁻¹	17.5	17.5	17.5	17.5
Specific Heat @ 20°C, [J/(kgxK)]	500	500	500	500

We hereby certify that the metal contained in the manufacturing process of
Orifice Plate, Perforated Disc and Wire Cloth (Screen) Gaskets
Is Stainless Steel per ASTM A240/A240M.

J. M. Restly
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