

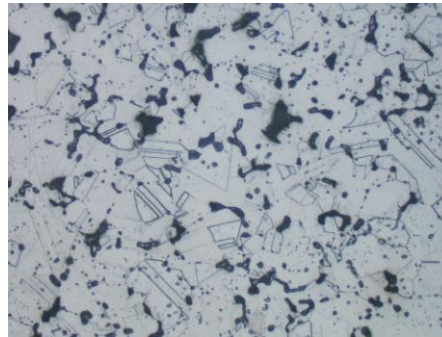


SSI-304L – PM Austenitic Stainless Steel for Automotive Exhaust System Applications

Chemistry

	Min	Max
Chromium	18.0	20.0
Silicon	-	1.0
Manganese	-	1.0
Phosphorus	-	0.04
Sulfur	-	0.03
Carbon	-	0.03
Nitrogen	-	0.03

Microstructure



Fully Austenitic with well-rounded pores and limited interconnected porosity

Room Temperature Mechanical Properties

Density, g/cm ³	7.1
Ultimate Tensile Strength, 10 ³ psi (MPa)	55 (380)
Yield Strength (0.2%), 10 ³ psi (MPa)	26 (180)
Elongation (in 1.0 in.), %	25
Elastic Modulus, x10 ⁶ psi (MPa)	22 (150)
Poisson's Ratio	0.25
Macrohardness (Apparent), HRB	20

Typical Magnetic Properties

Density, g/cm ³	7.1
Resistivity, μΩ-cm	90
Magnetic Induction (B ₁₀₀), kG (Tesla)	0.23 (0.023)

High Temperature Mechanical Properties

1200 F (650 C)

Ultimate Tensile Strength, 10 ³ psi (MPa)	30 (205)
Yield Strength (0.2%), 10 ³ psi (MPa)	15 (105)
Elongation (in 1.0 in.), %	10

1600 F (870 C)

Ultimate Tensile Strength, 10 ³ psi (MPa)	10 (70)
Yield Strength (0.2%), 10 ³ psi (MPa)	8 (55)
Elongation (in 1.0 in.), %	5



SCR System Flange

Reference Standards: MPIF Std. 35 (SS-304L); ASTM B783 (SS-304L)

The data presented are typical values, obtained from test specimens processed through production equipment. The data does not represent a guarantee of minimum or maximum values for the materials in actual parts, nor are they intended as warranties, express or implied, of fitness of material for use in any specific application.