

Stainless Steel Mechanical and Physical Properties

Material	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation (%)	Hardness (HRB)	Density (g/cm ³)	Thermal Conductivity (W/m·K)	Coefficient of Thermal Expansion (×10 ⁻⁶ /°C)
304	205	515-620	40-50	70-90	7.93	16.2	16
304L	190	480-600	40-50	70-90	7.93	16.2	16
304H	205	515-620	30-40	70-90	7.93	16.2	16
309H	205	520-750	30-45	70-90	7.93	16	16
310H	205	520-750	30-45	70-90	7.93	16	16
316	205	515-720	40-50	70-90	7.98	16.3	16
316H	205	515-720	30-40	70-90	7.98	16.3	16
316L	170	480-620	40-50	70-90	7.98	16.3	16
316LN	200	480-720	30-40	70-90	7.98	16.3	16
317	205	550-760	30-45	70-90	8.03	16.4	16
317L	200	480-650	30-45	70-90	8.03	16.4	16
321	205	520-750	40-50	70-90	7.98	16.2	16
321H	205	520-750	30-40	70-90	7.98	16.2	16
347	205	515-720	30-40	70-90	7.98	16.3	16
347H	205	515-720	30-40	70-90	7.98	16.3	16
410	240	480-620	20-30	70-80	7.7	24	11
430	275	450-550	25-30	70-80	7.7	25	11
2205	450	620-800	25-30	30-40	7.8	14	16
17-4 PH	690	800-900	5-10	30-40	7.75	20	16
254 SMO	450	650-750	25-35	30-40	8	15	16

Notes:

The values can vary based on the specific grade, heat treatment, and processing of the materials.

Ensure to refer to the specific standards and manufacturer data sheets for precise values applicable to particular applications.