

Brand name | Custom 455®

Trade name | Alloy 455

Material No.	EN Designation	UNS	Alloy
1.4543	X3CrNiCuTiNb12-9	S45500	455

Description | 1.4543 / Alloy 455 is a martensitic chromium stainless steel with nickel and copper addition.

Special properties | High corrosion resistance high-end hardness after aging.

C %	Si ≤ %	Mn ≤ %	P ≤ %	S ≤ %
≤ 0.03	0.50	0.50	0.02	0.015
Cr %	Mo %	Ni %	Ti ≤ %	Cu %
11.0-12.5	≤ 0.50	3.00-5.00	0.90-1.40	1.50-2.50
Nb %				
0.10-0.50				

Hardness HB 30 ≤ HB	0.2% Yield strength R <sub>p</sub> ≥ N/mm <sup>2</sup>	Tensile strength R <sub>m</sub> N/mm <sup>2</sup>	Elongation A <sub>5</sub> ≥ %	Modulus of elasticity kN/mm <sup>2</sup>
480	1510	1585-1720	8	200

Density g/cm <sup>3</sup>	Specific heat capacity J/kg K	Thermal conductivity W/m K	Electrical resistivity Ω mm <sup>2</sup> /m
7.78	450	14	0.76

Application | Medical technology

Available forms for 1.4543 / Alloy 455

