

1.4547

Description - 1.4547 / 254 SMO is an austenitic chromium-nickel-molybdenum stainless steel.

Special properties - Outstanding resistance to localized corrosion such as pitting and crevice corrosion, as well as to stress-corrosion. Acceptable seawater-corrosion.

Suitable welding filler materials - 1.4547.

Application - Chemical industry, offshore, seawater desalination plant.

Chemical Composition in %

C	N	Mn	Cr	Ni	Mo	Fe	Cu
≤0.02	0.18-0.25	≤1.00	19.5-20.5	17.5-18.5	6.0-7.0	Rest	0.5-1.0

Standards

Material No.	1.4547
EN Designation	X1CrNiMoCuN20-18-7
UNS	S31254
Alloy	254 SMO

Mechanical Properties 20 °C

Hardness HB 30	≤250
0,2% Yield strength Rp, N/mm²	≥300
Tensile strength Rm, N/mm²	650-850
Elongation A5, %	≥35
Modulus of elasticity, kN/mm²	200

Physical Properties 20 °C

Density, g/cm³	8
Specific heat capacity, J/kg K	500
Thermal conductivity, W/m K	13
Electrical resistivity, Ω mm²/m	0.85