

Trade name | Ti 3Al-1,5Mn

Standards	Material No.	EN Designation	ASTM	UNS
	3.7105	Titan Grade 12	Ti-Grade 12	R53400

Description | Ti-Grade 12; Titanium - 0.3%Mo - 0.8%Ni

Special properties | Low-alloy titanium materials were mainly developed for use in the chemical industry. They offer the same excellent properties as pure titanium grades together with improved corrosion resistance. This is achieved by means of minor additions of Pd and Ni + Mo, which raise their resistance to reducing solutions and reduce their susceptibility to crevice corrosion, especially in chloride-containing media.

Chemical Composition	C %	Mo %	Ni %	N %	Ti ≤ %
	≤ 0.08	0.20-0.40	0.60-0.90	≤ 0.03	Rest
	Fe %	O %	H %		
	≤ 0.30	≤ 0.25	≤ 0.015		

Mechanical Properties 20°C	Hardness HB 30 ≤ HB	0.2% Yield strength R _p ≥ N/mm ²	Tensile strength R _m N/mm ²	Elongation A ₅ ≥ %	Modulus of elasticity kN/mm ²
	170	345	≥ 480	18	105

Physical Properties 20°C	Density g/cm ³	Specific heat capacity J/kg K	Thermal conductivity W/m K	Electrical resistivity Ω mm ² /m
	4.5	520	22.6	0.52

Application | Pressure vessel applications

Available forms for 3.7105 / Ti-Grade 12	Sheets/Plates	Tubes/Pipes	Fittings	Forged / cast parts	Finished part (drawing)
					