

Hastelloy C-276

Materials Data Sheet

Description

This Nickel-Molybdenum-Chromium alloy with the addition of Tungsten, has excellent corrosion resistance in a wide range of corrosive media and is especially resistant to pitting and crevice corrosion.

Uses: Some typical applications of HASTELLOY C276 include equipment components in chemical and petrochemical organic chloride processes and processes utilizing halide or acid catalysts. Other industry applications are pulp and paper (digesters and bleach areas), scrubbers and ducting for flue gas desulfurization, pharmaceutical and food processing equipment.

Chemical Composition

Element	%
Mo	17.00
Cr	16.50
Fe	7.00
W	4.50
Co	2.50
C	0.01
Si	0.08
Mn	1.00
V	0.35
P	0.04
S	0.03
Ni	Remaining

Density	8.89g/cm ³	0.321 lb/in ³
Melting Point	1370°C	2500°F
Coefficient of Expansion	11.2 µm/m °C (20 - 100°C)	6.2 x 10 ⁻⁶ in/in °F (70 - 212°F)
Modulus of Rigidity	78.6 kN/mm ²	11400 ksi
Modulus of Elasticity	205.5 kN/mm ²	29806 ksi

Heat Treatment

Condition	Type	Temperature	
		°C	°F
Spring Temper	Stress Relieve	400-450	750-840

Properties

Condition	Approximate Tensile Strength		Approximate Operating Temperature	
	N/mm ²	ksi	°C	°F
Spring Temper	1300-1600	189-232	-200 to +400	-330 to +750

*Information compiled using Alloy Wire International as source.

The information and data in this product data sheet are accurate to the best of our knowledge and belief, but are intended for general information only.