

Products & Sizes

Precision Reroll Strip

0.0008" - 0.015"

C276 Chemical Composition

	Element	Percent by Weight Min	Percent by Weight Max
Ni	Nickel	57	-
Co	Cobalt	-	2.5
Cr	Chromium	16	-
Mo	Molybdenum	16	-
Fe	Iron	5	-
W	Tungsten	4	-
Mn	Manganese	-	1
V	Vanadium	-	0.35
Si	Silicon	-	0.08
C	Carbon	-	0.01
Cu	Copper	-	0.5

Industry Standards

Industry Applications

- Reactors
- Heat exchangers
- Pressure vessels
- Downhole tubing
- Stack liners and ducting
- Geothermal plant components
- Pump housings

Physical Properties

Property	Value
Density	0.321 lb/in ³ (8.90 g/cm ³)
Specific Gravity	8.90
Magnetic Permeability	1.02
Specific Heat	0.102 Btu/lb/°F (21°C)
Elastic Modulus 70°F (21°C)	29.8 x 10 ⁶ psi (205GPa)

C276 Linear Coefficient of Thermal Expansion

Average from 70°F (21°C)		Linear Coefficient of Expansion	
°F	°C	10 ⁻⁶ in/in/°F	10 ⁻⁶ cm/cm/°C
200	93	6.2	11.2
400	204	6.7	12.0
600	316	7.1	12.8
800	427	7.3	13.2
1000	538	7.4	13.4

C276 Thermal Conductivity

Temperature		Thermal Conductivity	
°F	°C	Btu/h•°F	W/m•K
-270	-168	4.2	7.3
-100	73	5.0	8.7
70	21	5.9	10.2
200	93	6.4	11.0
400	204	7.5	13.0
600	316	8.7	15.1
800	427	9.8	17.0
1000	538	11.0	19.0

Mechanical Properties

Property	Value
0.2% Yield Strength Minimum psi (MPa)	41,000 (283)
Ultimate Tensile Strength Minimum psi (MPa)	100,000 (690)
Elongation (% in 2") Minimum	40
Hardness Rb Maximum	100

Datasheet for C276

Temperature		0.2% Yield Strength		Tensile Strength		Elongation
°F	°C	Ksi	MPa	Ksi	MPa	(% in 2")
-320	-196	82	565	140	965	45
150	101	70	480	130	895	50
70	21	60	415	115	790	50
200	93	55	380	105	725	50
400	204	50	345	103	710	50
600	316	46	315	98	675	55
800	427	42	290	95	655	60
1000	538	39	270	93	640	60