

SOUTHERLY ALLOY

Hastelloy C-276 Pipe and Tube | UNS N10276 | Werkstoff Nr. 2.4819 / NiMo16Cr15W

ASTM B622 / B619 / B626 — Seamless and Welded Tubular Product for Acid, Chloride and Wet-Chlorine Duty

Product Description

Hastelloy C-276 pipe and tube serves chemical and pollution-control lines where one process stream mixes oxidizing and reducing attack. Seamless product follows ASTM B622, welded pipe follows B619, and welded tube follows B626. Sizes run from condenser tube to NPS 24 line pipe, supplied solution annealed and water quenched with EN 10204 3.1 certification.

Chemical Composition (ASTM B622 / B619 / B626)

Element	Content
Nickel (Ni)	57.0% min. (balance)
Molybdenum (Mo)	15.0–17.0%
Chromium (Cr)	14.5–16.5%
Tungsten (W)	3.0–4.5%
Iron (Fe)	4.0–7.0%
Cobalt (Co), max.	2.50%
Manganese (Mn), max.	1.00%
Vanadium (V), max.	0.35%
Silicon (Si), max.	0.08%
Carbon (C), max.	0.010%
Phosphorus (P), max.	0.040%
Sulphur (S), max.	0.030%

The purchase specification in force and the mill test certificate decide final acceptance.

Minimum Room-Temperature Mechanical Properties

Product Form	Standard	Condition	Tensile Strength	Yield Strength, 0.2% Offset	Elongation
Seamless pipe and tube	B622	Solution annealed	≥ 690 MPa (100 ksi)	≥ 283 MPa (41 ksi)	≥ 40%
Welded pipe	B619	Solution annealed after welding	≥ 690 MPa (100 ksi)	≥ 283 MPa (41 ksi)	≥ 40%
Welded tube	B626	Solution annealed after welding	≥ 690 MPa (100 ksi)	≥ 283 MPa (41 ksi)	≥ 40%

B622 adds hydrostatic, flattening and flare tests to seamless product. B626 brings a 100% eddy-current or ultrasonic examination. B619 and B626 both require a solution anneal and water quench after welding. No dedicated AMS document covers C-276 tubular product, so aerospace tube follows the project specification.

Physical Properties (typical room-temperature values)

Property	Value
Density	Approx. 8.89 g/cm ³
Melting range	Approx. 1325–1370 °C
Modulus of elasticity	Approx. 205 GPa
Thermal conductivity at 20 °C	Approx. 10.2 W/m·K
Specific heat at 20 °C	Approx. 427 J/kg·K
Electrical resistivity at 20 °C	Approx. 1.30 μΩ·m
Thermal expansion, 20–100 °C	Approx. 11.2 μm/m·K
Service ceiling in air	Approx. 540 °C continuous, duty dependent

Applicable Standards

Standard / Designation	Product / Application
ASTM B622 / ASME SB622	Seamless pipe and tube, cold-finished or hot-finished
ASTM B619 / ASME SB619	Welded pipe, solution annealed after welding
ASTM B626 / ASME SB626	Welded tube for heat exchangers, condensers, evaporators
ASTM B829	General requirements for seamless nickel alloy pipe and tube
ASTM B775 / B751	General requirements for welded nickel alloy pipe and tube
ASME B16.25	Buttwelding ends
NACE MR0175 / ISO 15156	Sour service in oil and gas production
DIN 17751	Nickel alloy tube, W.Nr. 2.4819
ISO 6207	Nickel alloy seamless tube
UNS N10276 · W.Nr. 2.4819 · NiMo16Cr15W · NS334	Designations

Typical Supply Dimensions

Product Form	Typical Supply Range	Length
Seamless pipe	NPS 1/2 to NPS 24, SCH 5S to XXS	Single random, double random, or custom
Seamless tube	OD 6.35–114.3 mm, wall 0.5–10 mm	Up to 12 m or custom cut lengths
Heat-exchanger tube	OD 6.35–76.2 mm, wall 0.7–6 mm	Up to 12 m or U-bend
Welded pipe	OD 21.3–610 mm, wall 0.5–100 mm	Fixed length or random
Welded tube	OD 3.18–127 mm, wall 0.38–12.7 mm	Coil or fixed length
EP / BA tube	OD 6–50.8 mm, wall 0.5–3 mm	Up to 6–12 m, clean service

Supply Conditions and Finishes

Surface Condition	Typical Use
Solution Annealed & Pickled	Standard delivered condition for acid and chloride service
Bright Annealed	Smooth, scale-free bore and OD for instrumentation and clean circuits
Pickled Only	Acid-descaled surface for general chemical piping
Beveled End	Weld-preparation beveling to the agreed standard for butt welds

Southerly Alloy — nickel alloy bar, rod, pipe, tube, plate and fittings · www.southerly-alloy.com · Values are for reference; the mill test certificate prevails for final acceptance.

Document Control · Hastelloy C-276 Pipe and Tube Technical Data Sheet · Rev. 1.0 · Issued 16 September 2026