



Piping system

Technical datasheet

Hastelloy G-35

Major specifications

ASTM B575/B574/B622/B619 AWS A5.14/A5.11 UNS N06035

Available product forms

Commonly available bar sizes range from $\Phi 6\text{mm}$ to $\Phi 350\text{mm}$.
 Plate and sheet thicknesses typically range from 0.15mm to 200mm.
 Strip thickness can be as low as 0.05mm, with widths generally not exceeding 600mm.
 Supply is limited and subject to minimum order quantities and longer lead times.
 Please visit <https://www.lorkalloy.com/> for current stock details.
 You can utilize our service center to have existing stock cut to your required dimensions.

Key features

Hastelloy G-35 is a nickel-chromium-molybdenum corrosion-resistant alloy that exhibits excellent general corrosion resistance in strongly oxidizing acid environments and mixed acids containing fluorine or chlorine, while effectively resisting pitting, crevice corrosion, and stress corrosion cracking. Its high chromium (Cr) and molybdenum (Mo) content facilitates the formation of a passive film, while its ultra-low carbon content and niobium (Nb) stabilization eliminate issues related to weld sensitization and knife-line attack. It is widely used in wet-process phosphoric acid evaporators, nitric/hydrofluoric acid pickling equipment, and sulfuric acid recovery systems.

Chemical properties

Composition - limits in %

Ni	Cr	Mo	Fe	Co	Si/W
max.58.0	max.33.2	max.8.1	max.2.0	max.1.0	max.0.6

Physical and thermal properties(room temperature)

Density	8.22 g/cm ³
Melting temperature	1332-1361°C
Electrical Resistivity	1.18 $\mu\text{ohm.m}$
Thermal Conductivity	10 W/m.°C

Typical mechanical properties (room temperature)

Elongation	$\geq 40\%$
Ultimate Tensile Strength	$\geq 690 \text{ MPa}$
0.2% Offset Yield Strength	$\geq 310 \text{ MPa}$

*This data comes from <https://www.lorkalloy.com/>

Data are typical values for reference only, not guaranteed minimums.
 Actual performance depends on service conditions and should be verified by the user.