

# Wilfley

## Material Data Sheet

## Hastelloy B-2, CW-2M, G30

Wilfley pumps and parts are available in Hastelloy B-2, CW-2M and G30.

Hastelloy alloy B-2 grade N7M modified, is a nickel-base alloy that was developed for resistance to the corrosive effects of hydrochloric acid.

Hastelloy alloy CW-2M is a nickel-base alloy that contains significant amounts of molybdenum and chromium. Wilfley Hastelloy CW-2M is specially processed to offer exceptional resistance to strong oxidizing and reducing agents.

Hastelloy alloy G30 grade CX2MW modified is a high chromium nickel-base alloy, which offers superior corrosion resistance in difficult phosphoric acid applications that contain oxidizing acids including nitric/hydrochloric and hydrofluoric and sulfuric acids.

### Mechanical Properties

Specification ASTM A494	Hardness Range HBN (typical)	Tensile Strength	Yield Strength	Elongation
Hastelloy B-2 grade N7M mod.	190-210	76,000 psi	40,000 psi	20% min
Hastelloy CW-2M Proprietary	140-170	72,000 psi	40,000 psi	60% min
Hastelloy G30 gr. CX2MW mod.	190-250	80,000 psi	45,000 psi	30% min

### Chemical Composition (weight %)

	H. B2 N7M mod.	H. CW-2M	H. G30 CX2MW mod.
C	0.03 max	0.020 max	0.03 max
Mn	0.8 max	1.0 max	1.5 max
Si	0.8 max	0.8 max	0.8 max
P	0.04 max	0.03 max	0.04 max
S	0.03 max	0.03 max	0.025 max
Cr	1.0 max	15-17.5	28-31.5
Mo	27.5-33.0	15.0-17.0	4.0-6.0
Cu			1.0-2.4
Co			5.0 max
Ni	65.0 min	60.0 min	43.0 typical
Fe	2.0 max	2.0 max	13.0-17.0
W		1.0 max	2.5-3.5
V			.35 max