



NELSEN STEEL COMPANY

THORBAR 50™

*“...Designed for
low-temperature service
applications requiring
excellent notch toughness
characteristics.”*



THORBAR 50™

This dual certified bar product is designed to meet the exacting material requirements of low alloy steel piping components including flanges, fittings, valves, and similar parts. ThorBar 50 is ideal for low-temperature service applications requiring excellent notch toughness characteristics. In fact, ThorBar 50 impact values are double the industry standard minimums through 1.625".

We bar mark ThorBar 50 hexagons with both the A105 (ASTM A105) and LF2 (ASTM A350) designations to assure material compliance to both specifications. Additionally, ThorBar 50 is ultrasonically tested for internal soundness to meet strict API code 661 requirements. Mechanical properties, impact notch toughness, chemistry, and dimensional integrity are controlled through special processing to assure consistency.

Mechanical Properties @ Room Temperature

Tensile Strength	70,000 psi - 95,000 psi
Yield Strength	36,000 psi (min)
Elongation in 2"	22% (min)
Reduction of Area	30% (min)
Hardness	187 HB (max)

Expected Impact Properties @ -50 F

	A350 LF2 Specification	ThorBar 50 ≤ 1.625" Hexagon	ThorBar 50 >1.625" Hexagon
Average Impact (Set of 3)	15 ft-lbs (min)	30 ft-lbs (min)	15 ft-lbs (min)
Minimum Impact (1 of Set)	12ft-lbs (min)	24 ft-lbs (min)	12 ft-lbs (min)

Hexagon Sizes: 1.000 - 1.875"
(Please inquire other sizes and shapes)

Chemistry: 1022 Modified

Carbon	.30 max	Nickel	.40 max
Manganese	.60 - 1.05	Copper	.40 max
Phosphorus	.035 max	Molybdenum	.12 max
Sulfur	.040 max	Columbium	.02 max
Silicon	.15 - .30	Vanadium	.08 max



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