

# Rockhard 400 – Technical Datasheet

## 1. Chemical & Mechanical Properties

Property	Value
Carbon (C)	≤ 0.20%
Manganese (Mn)	≤ 1.60%
Sulphur (S)	≤ 0.010%
Phosphorus (P)	≤ 0.025%
Silicon (Si)	≤ 0.70%
Chromium (Cr)	≤ 1.50%
Molybdenum (Mo)	≤ 0.50%
Boron (B)	≤ 0.005%
Yield Strength (YS)	≥ 1000 MPa
Tensile Strength (TS)	1250 – 1400 MPa
Elongation (%)	≥ 10
Hardness (HB)	360 – 440
Impact Test	30J min at -40°C

## 2. Equivalent / Alternative Grades

Standard	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Cr (%)	Mo (%)	B (%)	YS (MPa)	TS (MPa)	Elongation (%)	Hardness (HB)	Impact (J at °C)
EN 10029 / EN 10051	≤0.20	≤1.60	≤0.025	≤0.010	≤0.70	≤1.50	≤0.50	≤0.005	≥1000	1250-1400	≥10	360-440	30J at -40°C

ASTM A6 / ASTM A514	A R 4 0 0	≤0.2 0	≤1.6 0	≤0.0 25	≤0. 010	≤ 0	≤1. 50	≤0. 50	≤0.0 05	≥10 00	130 0- 140 0	≥10	360- 440	30J at - 40°C
JIS G3106	S M 4 0 0	≤0.2 0	≤1.6 0	≤0.0 30	≤0. 010	≤ 0	≤1. 50	≤0. 50	≤0.0 05	≥10 00	125 0- 140 0	≥10	360- 440	30J at - 40°C
ISO 3580	A R 4 0 0	≤0.2 2	≤1.6 0	≤0.0 30	≤0. 010	≤ 0	≤1. 50	≤0. 50	≤0.0 05	≥10 00	130 0- 140 0	≥10	360- 440	30J at - 40°C
DIN 17102	H a r d o x 4 0 0	≤0.2 0	≤1.6 0	≤0.0 25	≤0. 010	≤ 0	≤1. 50	≤0. 50	≤0.0 05	≥10 00	125 0- 140 0	≥10	360- 440	30J at - 40°C

### 3. Common Applications

- Excavator buckets
- Bulldozer blades
- Crushing equipment
- Dump truck liners
- Mining equipment wear parts

### 4. Standard Conformance

Proprietary abrasion-resistant steel grade designed for high hardness and wear resistance.

Used widely in heavy-duty mining and earth-moving machinery parts.

## 5. Disclaimer

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