

# Rock-hard 500 – Technical Datasheet

## 1. Chemical & Mechanical Properties

Property	Value
Carbon (C)	≤ 0.30%
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)	≥ 1250 MPa
Tensile Strength (TS)	1600 – 1800 MPa
Elongation (%)	≥ 8
Hardness (HB)	480 – 530
Impact Test	30J min at -40°C

## 2. Equivalent / Alternative Grades

Standard	Grade	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Cr (%)	Mo (%)	B (%)	YS (MPa)	TS (MPa)	Elongation (%)	Hardness (HB)	Impact (J at °C)
EN 10029 / EN 10051	Hardox 500	≤0.30	≤1.60	≤0.025	≤0.010	≤0.70	≤1.50	≤0.50	≤0.005	≥1250	1600-1800	≥8	480-530	30J at -40°C
ASTM A6 / AST	AR 500	≤0.30	≤1.60	≤0.025	≤0.010	≤0.70	≤1.50	≤0.50	≤0.005	≥1250	1600-1800	≥8	480-530	30J at -40°C

M A51 4														
JIS G31 06	SM 500	≤0 .3 0	≤1 .6 0	≤0. 03 0	≤0. 01 0	≤0 .7 0	≤1 .5 0	≤0 .5 0	≤0. 00 5	≥1 25 0	16 00- 18 00	≥8	480- 530	30J at - 40° C
ISO 358 0	AR 500	≤0 .3 0	≤1 .6 0	≤0. 03 0	≤0. 01 0	≤0 .7 0	≤1 .5 0	≤0 .5 0	≤0. 00 5	≥1 25 0	16 00- 18 00	≥8	480- 530	30J at - 40° C
DIN 171 02	Har dox 500	≤0 .3 0	≤1 .6 0	≤0. 02 5	≤0. 01 0	≤0 .7 0	≤1 .5 0	≤0 .5 0	≤0. 00 5	≥1 25 0	16 00- 18 00	≥8	480- 530	30J at - 40° C

### 3. Common Applications

- Crusher liners
- High-wear components
- Abrasion-resistant plates in mining equipment
- Protective linings for processing machinery

### 4. Standard Conformance

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

Ideal for the most demanding wear applications requiring highest hardness and toughness.

### 5. Disclaimer

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