RAUNAQ STEELS TRADING PRIVATE LIMITED

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

MA514														
JIS G3106	SM500	≤0.30	≤1.60	≤0.030	≤0.010	≤0.70	≤1.50	≤0.50	≤0.005	≥1250	1600-1800	≥8	480-530	30J at -40°C
ISO 3580	AR500	≤0.30	≤1.60	≤0.030	≤0.010	≤0.70	≤1.50	≤0.50	≤0.005	≥1250	1600-1800	≥8	480-530	30J at -40°C
DIN 17102	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

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

For **authoritative** and **legally binding** specifications, users must refer to the **official publications** of the relevant standards—such as the BIS, ASTM, EN or JIS standards—available through their respective websites or published documents.