# SIDUR 3401 Steel

**Designation by Standards**

| Brand Name | Ravne | Mat. No. | DIN | EN | AISI/SAE |
|---|---|---|---|---|---|
| SIDUR 3401 | 12MN | 1.3401 | X120Mn12 | - | A128 grade A |

**Chemical Composition (in weight %)**

| C | Si | Mn | Cr | Mo | Ni | V | W | Others |
|---|---|---|---|---|---|---|---|---|
| 1.20 | 0.40 | 12.50 | max. 1.50 | - | - | - | - | - |

**Description**
Austenitic Mn-steel. The well-known Hadfield steel still has broad applications in the mineral processing industry. Especially under impact loading  Hadfield steel displays good wear resistance due to its high cold work ability. However, Hadfield steel is not corrosion resistant.

**Applications**
Components for dredgers and crushers, conveying machines: crushings jaws, impact wedges, linings, etc.

**Physical properties (average values) at ambient temperature**
Modulus of elasticity [$10^3$ x $N/mm^2$]: 190-210
Density [$g/cm^3$]: 7.88

**Hardening**
Harden from a temperature of 1000-1050$^oC$ followed by water quenching. Hardness after quenching is about 200 HB.

**Mechnical properties at ambient temperature:**
0.2 % proof stress ($N/mm^2$): 350
Tensile strength ($N/mm^2$): 800-1000

**Forging**
Hot forming temperature: 1050-850$^oC$

**Machinability**
The machinability of this steel is poor.

Forms manufactured: Please see the Dimensional Sales Program.

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