



Material Specification Sheet

Acicular Nodular Cast Iron

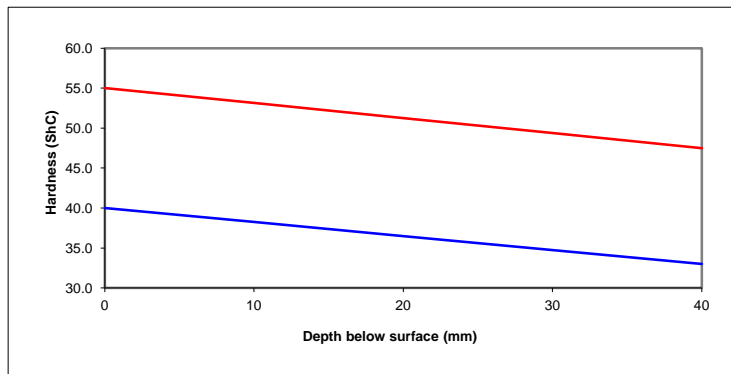
BN 718

**A Ni-Mo-(Cr) alloyed iron containing a pearlitic-bainitic matrix with a low amount of carbide and some nodular graphite embedded in the matrix.
Special developed high temperature annealing is used to produce a roll with excellent resistance to fire cracking and with high strength especially for deep grooved rolls.**

Chemical Composition

| | C | Mn | Si | P | S | Ni | Cr | Mo | Mg | | |
|------------|------|------|------|-------|-------|------|------|------|------|--|--|
| Min | 3.10 | 0.60 | 1.50 | 0.000 | 0.000 | 1.30 | 0.00 | 0.50 | 0.04 | | |
| Max | 3.60 | 1.20 | 2.20 | 0.100 | 0.100 | 2.20 | 0.40 | 1.00 | 0.08 | | |

Hardness Curve



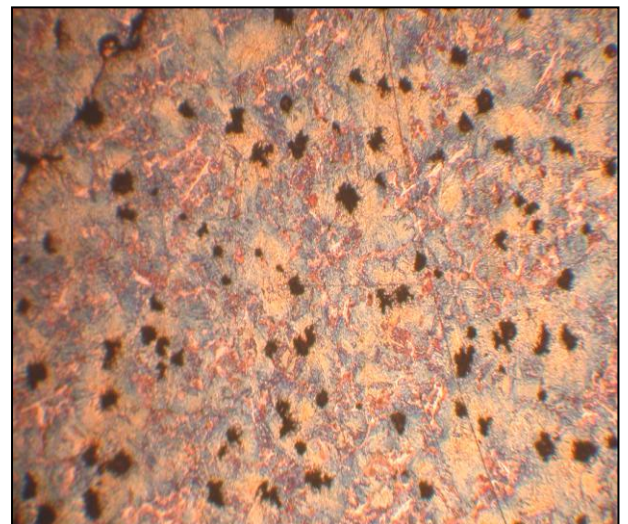
Physical Properties

| | |
|--|-----------------|
| Tensile Strength (tensile test rod B12x60 DIN 50125) | 450 to 600 MPa |
| Bending Strength (Bending test 10 at DIN 50110) | 950 to 1200 MPa |
| Impact strength (ISO-V Test piece, DIN 50115) | 2.5 to 3.5 J |
| Percentage elongation (after fracture) | < 1 % |
| Alternating tensile - compression strength | 100 to 150 MPa |

Microstructure



50 X - Graphite unetched



100 X - etched

Nov-11