



Abrasion-Resistant Cast Iron ASTM A532 Class I type B

Ni-Cr-LoC is a popular abrasion resistant cast iron in ASTM A532 standard class I type B; it is one type of White Iron.

Casting Methods in Casting Quality Industrial:

- Sand Casting
- Shell Casting

Equivalent Abrasion-Resistant Cast Iron Grade:

EN 12513 Grade EN-GJN-HB480 EN5.5602

DIN 1695 Grade G-X 260 NiCr4 2 (DIN 0.9620)

Reference Casting Standards:

ASTM A532 Standard Specification for Abrasion-Resistant Cast Irons

ASTM A532 Class I type B Designation Ni-Cr-LoC chemistry requirement: www.castingquality.com

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|--------------|-----------|
| Standard | ASTM A532 |
| Class | I |
| Type | B |
| Designation | Ni-Cr-LC |
| Carbon % | 2.4-3.0 |
| Manganese % | 2.0 max |
| Silicon % | 0.8 max |
| Nickel % | 3.3-5.0 |
| Chromium % | 1.4-4.0 |
| Molybdenum % | 1.0 max |
| Copper % | - |
| Phosphorus % | 0.30 max |
| Sulfur % | 0.15 max |



ASTM A532 Class I type B Designation Ni-Cr-LoC Mechanical Property:

No requirement about tensile/yield and elongation. www.castingquality.com

ASTM A532 Class I type B Designation Ni-Cr-LoC Hardness Requirements:

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|----------|-----------|
| Standard | ASTM A532 |
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|--|--------------------|-------------------|
| Class | I | |
| Type | B | |
| Designation | Ni-Cr-LoC | |
| As Cast or As cast and Stress relieved | 550HB/53LOCR/600HV | |
| Hardened or Hardened and Stress Relieved | Level 1 | 600HB/56HRC/660HV |
| | Level 2 | 650HB/59HRC/715HV |
| Chill Cast, min | 600HB/56LOC/660HV | |
| Softened, max | - | |

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ASTM A532 Class I type B Designation Ni-Cr-LoC Heat treatment process

It will be up to the hardness requirement: as Cast, as Cast and Stress relieved, Hardened, Hardened and stress relieved, Softened for machining. www.castingquality.com

ASTM A532 Class I type B Designation Ni-Cr-LoC Typical Casting Application:

- Pump industry.
- Mining industry, crusher liner, chute liner.
- Oil or recycling.

What is White Iron? www.castingquality.com

When white iron solidifies, virtually all the carbon appears in the form of carbides, White irons are hard and brittle, and they break with a white fracture. These irons are usually alloyed with Chromium and Nickel. The hardness is in the range of 500 to 600 BHN, the specific alloying that is required in a function of section size and application; there must be coordination between designer and foundry. These irons exhibit outstanding wear resistance and are used extensively in the mining industry for ball mill shell liners, balls, impellers, and slurry pumps. www.castingquality.com