

# $^{10}\text{B}$ in Form of Iron Boride for the Nuclear Industry



- For neutron absorption in control rods, storage racks and dry storage casks for spent fuel.
- For several applications the neutron absorption cross section of natural boron is insufficient. Limitation of geometry or toughness requires higher specific neutron absorption in order to reduce the boron content of the alloy material.
- Current demand for more storage capacity for spent nuclear fuel elements requires more compact storage pools in NPPs and more capacity of dry storage and transport casks.
- Iron Boride is the preferred compound of boron suitable for production of steel alloys homogeneously poisoned with enriched Boron-10.

### Specification

- Material  $^{10}\text{B}$ -Boron 10 in form of crystalline Iron Boride
- Isotopic content  $^{10}\text{B}$  > 96.0 at%
- Total B-content 18 - 20 wt%
- Specific gravity > 5.9 g/cm<sup>3</sup>
- Particle size on customer's request

### Impurities in wt%

Al	<	0.05
C	<	0.1
Cl+F	<	0.02
Mn	<	0.2
Si	<	0.1

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