

^{10}B in Form of Boric Acid for the Nuclear Industry



- Enriched Boric Acid for use as a chemical shim for excess neutron absorption in the primary circuit of PWRs using high burnup or MOX fuel cores.
- In these PWRs neutron absorption of natural Boric Acid is insufficient. Solubility of Boric Acid limits the boron concentration in primary circuit water to be used as neutron poison.
- Today more and more enriched Boric Acid (95 % enriched in ^{10}B) is used by NPPs.

Specification

- Material ^{10}B -Boron-10 in form of crystalline Boric Acid
- Enrichment ^{10}B > 95 at%
- Purity > 99.95 wt%

Impurities in $\mu\text{g/g}$

As	<	0.5
Ca	<	1
Cl	<	1
Co	<	0.1
Cr	<	0.1
F	<	1
Fe	<	0.5
Heavy metals (e.g.Pb)	<	0.5
Hg	<	0.5
H ₂ O insolubles	<	10
Na	<	0.5
PO ₄	<	0.5
SO ₄	<	1
Ti	<	0.1

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