Product information: NAstra® (from iron silicate granulate ex Hamburg)

Designation: NAstra®

Basis: DIN EN ISO 11126-3

Standard designation: ISO 11126 blast abrasive N/CU/G (plus declaration particle size of particlesize range)

Quality: Synthetically produced non-metallic mineral abrasive. Synthetic non-metallic mineral abrasive

Grain shape angular.

Made from the basic product iron silicate granulate of Aurubis AG, Hamburg (slag in accordance with DIN 4301).

PAs to quality assurance, the product is subjected to continuous examination. In accordance with national and EU requirements.

For NAstra® dry storage is recommended in order to keep fluidity.

Status: NAstra® is a product.

Licensing: Iron silicate granulate from the Aurubis AG, that is used to manufacture NAstra®, is examined on the basis of the EU REACH Regulation and in the EU authorities ECHA in Helsinki. It is properly registered as a product (Registry-No. 01-2119513228-45-0008 ) and it is safe according to the classification rules in CLP Regulation ( EG/1272/200 ) and the Dangerous Substances Directive 67/548/EEC.

NAstra® has been tested to BGIA standards and meets all requirements in accordance with BG (German counterpart of ISSA) -Regulation 500, paragraph 3.2, section 2.24 (“Blast Cleaning”), and is pronounced as a free silica abrasive.
**NAstra®** has been checked on WHO-fibres, that are respirable. The fibrous material, therefore not to be specifically considered for OSH.” (Quote translation Tom Goebel Bundesanstalt für Arbeitsschutz und Arbeitsmedizin, 2011).

**Origin:**
During melting of copper ore concentrates under addition of silica sand (SiO2) the base product iron silicate granulate is manufactured. Subsequently, the produced molten iron silicate is passing a groove and is granulated at a temperature of approx. 1250 degrees Celsius using a temperature controlled pressurized water jet. Next, the iron-silicate-granulate is dehydrated and substantially separated from the fine grain.

**Chemistry:**
Composition of iron silicate:

- about 90 wt % of Fe2O3 + SiO2
- about 7 wt % Al2O3, MgO, CaO, Na2O, K2O
- about 3 % by weight of trace elements bound in oxidic and sulfidic mineral phases.

**Special features:**
Grain shape angular
High density
Very low water absorption
Very good weathering and long-term stability
Extreme hardness and toughness over all particle sizes
No crushing or grinding operation required at **NAstra®** production
High-performance abrasivity

**Product-technical specifications:**
- Dry bulk density: about 3.6 kg/dm3
- Bulk density: about 1.9 kg/dm3
- Mohs hardness: about 7
- Silicogenic components: < 1 wt %
- Water soluble chlorides: < 0.0025 %
- Electrical conductivity: < 25 mS/m