

### Examples and areas of use of synthetic inorganic fibres

Examples of places where you can come into contact with synthetic inorganic fibres at Ineos:

- Insulation (Vitreous fibres)
- Cracking furnaces (Ceramic fibres)
- Gas burners (Ceramic Fibres)
- Secondary cells chlorine (Graphite, Applies to graphite dust)
- Glass fibre reinforced pipes mainly at the chlorine factory (goes under vitreous fibres)

<b>Certain synthetic inorganic fibres, raw materials and examples of areas of use</b>			
Synthetic inorganic vitreous fibres	Main raw materials	Nominal diameter	Examples of area of use
Mineral wool (glass wool, rock wool, slag wool)	Sand, soda, lime, scrap glass, broken glass (glass wool), the rock types diabase and basalt (rock wool), slag from iron and steel industry (slag wool)	4-5 µm	Intermediate product for producing insulating wool products for thermal and acoustic insulation. Intermediate product for producing wool products for reinforcement of composites. Friction material in brake linings. Gaskets. Fire protection.
Continuous glass fibre	Sand, soda, lime, scrap glass, broken glass	Approx. 10 µm	Glass fibre textile, e.g. wall coverings. Reinforcement or textile fibres. Intermediate product for the production of fibre-reinforced plastic composites used in construction materials for marine products and consumer goods. Glass fibre fabric for thermal and electrical insulation, paper sealing strips, tyres etc.
Refractory ceramic fibres	Aluminium oxide and silica or kaolin	1-3 µm	Insulation for intense heat e.g. in ovens. Friction material. Included in metal composites to reinforce engine components, catalytic converters, car heat shields, air bag systems for cars and space heat shields. During production of thermal insulation products. Fire and flame protection of buildings and ships.
Special fibres	Sand, soda, lime, scrap glass, broken glass	0.1-3 µm	Insulating fibres for aircraft and spacecraft. Battery separators, filtration, aviation aerospace insulation. Intermediate product during production of high performance insulating products
Graphite fibres	Tar, asphalt or synthetic inorganic fibres, e.g. rayon	Depends on production method	Reinforcement.
Silicon carbide fibres	Quartz sand, coke, graphite, sawdust, rice husks	Depends on production method (continuous fibres) <1 µm (whiskers)	Reinforcement. Refractory abrasive material.

Limit values:

To see the limit values for the different products see AFS 2005:17