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## PRODUCT-INFORMATION

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### 1. Product Name

MECHANO-COND<sup>®</sup> 6P3

### 2. Product description

MECHANO-COND<sup>®</sup> 6P3 is a very fine ground, hexagonal boron nitride (HBN). Hexagonal boron nitride is also known as white graphite. A special feature of HBN is the excellent thermal conductivity and the missing electrical conductivity as well as the high temperature and oxidation resistance. MECHANO-COND<sup>®</sup> 6P3 can be used in all fields where the typical features of graphite are not desired (such as avoidance of electrical conductivity) or where they are insufficient (e.g. oxidation resistance). Despite its very fine particle size MECHANO-COND<sup>®</sup> 6P3 shows a perfect platelet structure a high aspect ratio and outstanding whiteness.

### 3. Applications

- Ceramic slips and sintered products
- Reduction of friction coefficient (outstanding lubricating and separating effects)
- Improvement of thermal conductivity
- Synergistic effects with other lubricants like graphite, molybdenum disulfide, tungsten disulfide and PTFE
- Coatings and lacquers
- Production of suspensions
- Mechanical reinforcing of thermoplastics, resins and elastomeres
- High temperature resistance even in oxidizing environment
- Electrical isolation
- Chemical inert
- Non toxic



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### 4. Properties

| Property                      | Specification     | Unit              |
|-------------------------------|-------------------|-------------------|
| Boron nitride                 | >98.5             | Weight-%          |
| Crystal structure             | hexagonal         | -                 |
| Colour                        | white             | -                 |
| Thermal conductivity          | 120               | W/mK $\perp$      |
| Electrical resistance         | >10 <sup>12</sup> | $\Omega$ cm       |
| Melting point                 | 2700-3000         | °C                |
| Specific weight               | 2.25              | g/cm <sup>3</sup> |
| Specific surface BET          | 15-25             | m <sup>2</sup> /g |
| Moisture                      | max. 0.5          | Weight %          |
| Particle size D <sub>50</sub> | 2-5               | $\mu$ m           |

Information provided on this technical data sheet indicates the approximate physical and chemical properties of the material. No warranty is made either expressed or implied regarding the accuracy or the results to be obtained from the use of such information.