

## Description:

Black Silicon Carbide is extremely hard and sharp with excellent physical and chemical properties. The material is commercially produced by the so-called "Acheson Process" using silica sand and pet coke as raw materials. It offers, amongst others, good heat-resistance and very high wear resistance.

## Application:

- Grinding
- Polishing

## Chemical Analysis ( typical):

|                                  | SiC         | C free     | Si free     | SiO <sub>2</sub> | Fe <sub>2</sub> O <sub>3</sub> |
|----------------------------------|-------------|------------|-------------|------------------|--------------------------------|
| <b>F 230, F240, F 280, F 320</b> | min. 98.50% | max. 0.30% | max. 0.60 % | max. 0.70%       | max. 0.20%                     |
| <b>F 360, F 400</b>              | min. 98.00% | max. 0.30% | max. 1.00%  | max. 0.90%       | max. 0.20%                     |
| <b>F 500, F 600</b>              | min. 97.00% | max. 0.30% | max. 1.80%  | max. 1.50%       | max. 0.20%                     |
| <b>F 800</b>                     | min. 95.50% | max. 0.30% | max. 2.00%  | max. 2.50%       | max. 0.20%                     |
| <b>F 1000</b>                    | min. 95.00% | max. 0.40% | max. 2.50%  | max. 2.50%       | max. 0.20%                     |
| <b>F 1200</b>                    | min. 94.50% | max. 0.40% | max. 2.50%  | max. 2.80%       | max. 0.20%                     |
| <b>F 1500, F 2000</b>            | min. 93.00% | max. 0.40% | max. 3.50%  | max. 3.50%       | max. 0.20%                     |

## Available Grits and Bulk Densities (g/cm<sup>3</sup>):

| Grit         | min. | max. | Grit          | min. | max. |
|--------------|------|------|---------------|------|------|
| <b>F 230</b> | 1.70 | 1.82 | <b>F 600</b>  | 1.40 | 1.55 |
| <b>F 240</b> | 1.70 | 1.82 | <b>F 800</b>  | 1.25 | 1.50 |
| <b>F 280</b> | 1.70 | 1.82 | <b>F 1000</b> | 1.05 | 1.25 |
| <b>F 320</b> | 1.70 | 1.82 | <b>F 1200</b> | 0.85 | 1.10 |
| <b>F 360</b> | 1.65 | 1.75 | <b>F 1500</b> | 0.75 | 1.00 |
| <b>F 400</b> | 1.60 | 1.75 | <b>F 2000</b> | 0.75 | 1.00 |
| <b>F 500</b> | 1.50 | 1.65 |               |      |      |

## Grits and Particle Size Distribution (µm):

| Grit          | D <sub>S3</sub> max. | D <sub>S50</sub> | D <sub>S94</sub> min. |
|---------------|----------------------|------------------|-----------------------|
| <b>F 230</b>  | 85.2                 | 50.0 ± 3.0       | 34.4                  |
| <b>F 240</b>  | 72.6                 | 42.0 ± 2.0       | 28.3                  |
| <b>F 280</b>  | 61.1                 | 34.5 ± 1.5       | 22.1                  |
| <b>F 320</b>  | 50.6                 | 27.7 ± 1.5       | 16.5                  |
| <b>F 360</b>  | 41.1                 | 21.6 ± 1.5       | 11.9                  |
| <b>F 400</b>  | 32.7                 | 16.5 ± 1.0       | 7.9                   |
| <b>F 500</b>  | 25.3                 | 12.3 ± 1.0       | 4.8                   |
| <b>F 600</b>  | 19.0                 | 9.0 ± 1.0        | 2.8                   |
| <b>F 800</b>  | 13.8                 | 6.3 ± 1.0        | 1.7                   |
| <b>F 1000</b> | 9.6                  | 4.5 ± 0.8        | 0.7                   |
| <b>F 1200</b> | 6.4                  | 3.1 ± 0.5        | 0.4                   |
| <b>F 1500</b> | 5.0                  | 2.0 ± 0.5        | 0.2                   |
| <b>F 2000</b> | 3.5                  | 1.2 ± 0.3        | 0.1                   |

## Packing:

In 25-kg-bags on pallets of 1 MT shrinkfoiled.

This technical information is given according to today's knowledge and can be subject to changes.

\*Sieving is determined according to Fepa Standard 42-2:2006; bulk density according to Fepa Standard 44:2-2006.