

**Silicon carbide for forming of complex shapes (plastic forming eq. extrusion, 3D printing).  
Mixed with our own quality assured B<sub>4</sub>C and Carbon in optimal conditions for solid-state (SSiC)  
sintered technical ceramics.**

Densitec X-Form powder is based on our standard black Sintex 13. The premix is doped with sintering additives, and is ready to be formed into a green body.

**Packaging 15 kg plastic pails**

### Composition

| Sintering additives |               | Binder content (total organic) | Moisture content | SiC type  |
|---------------------|---------------|--------------------------------|------------------|-----------|
| Carbon              | Boron         | %                              | %                | balance   |
| Carbon black        | Boron carbide | approx. 1                      | approx. 0.7      | Sintex 13 |

### Typical physical properties

| Powder            |                 | Extruded green body |                        |
|-------------------|-----------------|---------------------|------------------------|
| Bulk density      | Hall flow-meter | Green density       | Drying over night 55°C |
| g/cm <sup>3</sup> |                 | g/cm <sup>3</sup>   |                        |
| 0.85              | 90              | 2.0                 | 1.5 MPa                |

### Typical properties of sintered parts

| Density           | Microhardness HV 1000 | Indentation fracture toughness, K <sub>IC</sub> | Linear shrinkage | Bending strength |
|-------------------|-----------------------|---|------------------|------------------|
| g/cm <sup>3</sup> | GPa                   | MPa/m   | %                | 4 point MPa      |
| 3.12              | 24                    | 3.8   | approx. ~ 17     | 400              |

### Typical Sintering Cycles

