

SWARCOFORCE 1-20 C3

Product data sheet

Main characteristics

SWARCOFORCE glass filler beads are high-grade fillers that contribute to improving the physical properties of plastics, resins, paints, varnishes, surface coatings and building materials.

SWARCOFORCE glass filler beads impact the properties of the final product, such as rigidity and pressure resistance, warpage and shrinkage behaviour, flowability, abrasion resistance, tensile strength, impact resistance, colour, scratch resistance, surface gloss, and light diffusion.

Product information (*)

| Property | Typical value | Unit |
|--------------------------------|---------------|-------------------|
| Particle size, D ₅₀ | 1-20, 7-10 | µm |
| Roundness | > 80 | % |
| Bulk weight | ~1,5 | g/cm ³ |
| Specific weight | 2,5 | g/cm ³ |
| Hardness | 6-7 | acc. to Mohs |
| | 46-58 | acc. to Rockwell |
| | 645 | acc. to Vickers |
| Whiteness / L-value | > 65 | |

Coating

C3 is a silane coating that enables better adhesion of the glass bead, especially to silicone, saturated acrylic resin, PA, PC, PESU, PMMA, POM, PSU, PVC, TPU, etc.

Chemical composition (*)

| Property | Typical value | Unit |
|--------------------------------|---------------|------|
| SiO ₂ | 65-75 | % |
| Na ₂ O | 10-20 | % |
| CaO | 5-15 | % |
| MgO | 0-10 | % |
| Al ₂ O ₃ | 0-10 | % |
| K ₂ O | 0-3 | % |
| BaO | 0-3 | % |
| Fe ₂ O ₃ | 0-3 | % |

Heavy metal content (*)

| Element | Typical value | Unit | Fluctuation range |
|----------|---------------|------|-------------------|
| Chromium | 10,8 | ppm | ± 2,5 |
| Arsenic | 0,8 | ppm | ± 0,5 |
| Cadmium | < 0,2 | ppm | - |
| Antimony | 2,1 | ppm | ± 1,1 |
| Mercury | < 0,1 | ppm | - |
| Lead | 4,6 | ppm | ± 3,1 |

(*) This data must not be used as a specification.

Packaging

- In paper bags of 25 kg (with plastic inner bag).
- Packaging is available in 500 – 1.250 kg big bags on customer request.

Storage

- Storage of products in closed, dry rooms.
- Shelf life in original packaging: 6 months.
- Protect from frost, overheating and direct sunlight.
- Ideally, SWARCOFORCE filler glass beads should be brought to the processing hall the day before to ensure optimal adaptation to the ambient temperature and dry processing.

Safety

Read the safety data sheet before using the product.

Important information: For technical production reasons, impurities, additives, and oversized particles of up to 0.1 percent by weight may occur. Dust and undersized particles (unless otherwise specified in the sieve curve) are possible up to 0.5 percent by weight.

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