

carbonauten® ICP Tech BioC 50/70/4 IM

ICP Biocarbon biocomposite to help reduce CO2 emissions

Description

carbonauten® ICP Tech BioC 50/70/4 IM is a 50% biocarbon-filled polypropylene impact copolymer bio-composite. Material properties include excellent stiffness, high thermal stabilization, high dimensional stability, natural black surface aesthetics, and reduced CO2 footprint. The grade has a medium flow rate for easy processing for injection moulding applications.

The grade is available in black color form.

Applications

- injection moulding
- caps
- houseware articles
- automotive parts
- packaging
- furniture

Sustainability

carbonauten® ICP Tech BioC 50/70/4 IM bio-composite contains bio-based biocarbon primarily obtained from woody waste residues. The CO2 footprint is calculated to -1,35 kg CO2 equivalent/kg. Compared to a conventional PP product, you save 2,60 kg CO2 equivalent/kg.

Characteristics

Physical Properties/Typical Value

Property	Unit	Test Method	Test Condition	Value
Melt Volume Flow Rate	g/10 min	ISO 1133	230°C /2.16 kg	4
Density	g/cm ³	ISO 1183		1.06
Tensile Strength	MPa	ISO 527	23°C	18
Izod Impact Strength	kJ/m ²	ISO 180/A	23°C	1.5
Tensile Modulus	MPa	ISO 527-2	23°C	2.200

The information above represents average values for several attributes and is intended as a general guide only. Please do not interpret them as specifications.

Packaging and storage

Standard packaging includes the 25 kg bags, all bags are tightly sealed and should be opened only immediately prior to processing. The product can be supplied in big bags as per customer requirements.

carbonauten® ICP Tech BioC 50/70/4 IM bio-composite shall be kept in a dry environment and shielded from UV rays. Unsuitable storage conditions may negatively affect product quality.

Recommended processing parameters

The moisture content of the carbonauten® ICP Tech BioC 50/70/4 IM prior to processing shall be lower than 0.5%.

The following parameters should be used as guidelines:

Melt temperature	230-260 °C
Nozzle temperature	200-230 °C
Front: Zone 3 Temperature	200-230 °C
Middle: Zone 2 Temperature	190-210 °C
Rear: Zone 1 Temperature	190-210 °C
Mold Temperature	20-50 °C
Injection speed:	As high as possible

carbonauten polymers

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Disclaimer

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical, or healthcare applications and we do not support their use for such applications. To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information. Carbonauten GmbH makes no warranties that extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose. It is the customer's responsibility to inspect and test our products to satisfy themselves as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe, and legal use, processing, and handling of our products. No liability can be accepted in respect of the use of carbonauten products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third-party materials.

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