

# carbonauten® ABS Tech BioC 40/70/5 IM

ABS Technical Biocarbon Composites Reduce CO2 Emissions

### Description

carbonauten® ABS Tech BioC 40/70/5 IM is a 40% biocarbon-filled ABS bio-composite. Material properties include excellent stiffness, high thermal stabilization, high dimensional stability, natural black surface aesthetics, and reduced CO2 footprint. The grade is available in natural black color form.

### Applications

- Appliances
- Rigid packaging
- Electronics
- Automotive parts
- Power tools housing
- Consumer goods

### Sustainability

carbonauten® ABS Tech BioC 40/70/5 IM bio-composite contains technical biocarbon primarily obtained from woody waste residues. The CO2 footprint is calculated to -0,42 kg CO2 equivalent/kg. Compared to a conventional ABS product, you save 3,71 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	220°C /10 kg	5
Density	g/cm <sup>3</sup>	ISO 1183		1.14
Tensile Strength	MPa	ISO 527	23°C	35
Izod Impact Strength	kJ/m <sup>2</sup>	ISO 180/A	23°C	2
Tensile Modulus	MPa	ISO 527-2	23°C	3,600

*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

As standard our composites are shipped in 25 kg bags. Bags are tightly sealed and should be opened only immediately prior to processing. As an Option the product can also be supplied in big bags.

carbonauten® ABS Tech BioC 40/70/5 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 carbonauten® ABS Tech BioC 40/70/5 IM prior to processing shall be lower than 3%, therefore it is recommended that the material is pre-dried at a temperature of 80-95 °C for 4 hours.

The following parameters should be used as guidelines:

Melt temperature	230-275 °C
Nozzle temperature	230-275 °C
Front: Zone 3 Temperature	220-255 °C
Middle: Zone 2 Temperature	210-250 °C
Rear: Zone 1 Temperature	190-240 °C
Mold Temperature	50-80 °C
Back Pressure	0.3-0.7 MPa
Screw speed	30-60 rpm

# carbonauten polymers

## the minus CO2 factory

### **Disclaimer**

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical, or healthcare applications and we do not support the use in these areas. 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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