# CAPROWAX P™ 6006-C65-NF5910 NF-BioComposite

Application: Nature-Fibre-Bio-Composites, Dry-Blend-Powder-Coating

Sinter- and Carrier material



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www.caprowax-p.eu

for Customer projects
Product Information
07/2022

Polymer and Product Development
Talstrasse 83
D 60437 Frankfurt am Main

| Physical Properties | | | |
|---|---|---|---|
| Physical form | | | Powder, extra fine-grained <500 µm (98%) |
| Cellulose content | | % | 10 |
| Cellulose particles d50 | | µm | 248 |
| Residual humidity | | % | <4 |
| Softening Temperature | DSC | °C (°F) | 57-63 (135-145) |

*) Based on the biological sources of waxes different values of viscosity could be occur
Tensile strength and elongation are dependent of temperature and stretching conditions
Measurements make only sense with comparable process conditions and thickness of moulded or stretched articles

**Description of free flowing, thermoplastic NF-Bio-Composite-Dry-Blend-Powder**

CAPROWAX P™ 6006-C65-NF5910 is an extra fine-grained dry-blend-mixture of compostable binding agent CAPROWAX P 6006-C65 (intermediate) and 10 % microcristalline cellulose
84 % of organic carbon are biobased (calculated)
All components comply the specification of DIN EN 13432

**Advantages of binding agent CAPROWAX P 6006-C65**

consists of aliphatic – biodegradable MARINE, home/industrial compostable - certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil.
Manufactured in form of powdered intermediate, comparable with CAPROWAX P® 6006 DIN EN 13432 tested by MFPA Weimar

Certificate No.: P31/029-05

**No food and feeding stuff Ecofriendly composition**

GM-free, no content of starch or PLA
Without content of aromatic or nitrogeneous substances
Free colour design with white fibres

**Applications**

BioComposites, Sinter- and Carrier material, Textile coating,
Suited for compostable one way products
Bio-NFC, cups, trays, plates, decor, sandwiches, textiles
Pellets for fixed bed, consumable bioreactors, sintered core material, thermoplastic NatureFibre-Bio-Prepregs
In pelletized form: Injection moulding or other thermoforming

**NF-BioComposites with sintering or extrusion**

The product is only created when heated to at least 160°C
Order of process management for Bio-NFC and Bio-WPC:
Powder scattering / dosing / coating
Drying at 70-80°C by bottom heat, IR or Microwave
Deaeration/Compacting at 80°C / pressureless sintering at 100-160°C
Cooling down / Grouting at 100-130°C / Cooling down <40°C
Mold cooling at 15°C / Demolding or strain <40°C
Calendering to Bio-NFC/Bio-WPC-Sheets at 100-70°C
Bio-NFC and Bio-WPC thermoforming at 80–100°C.
Compounding or agglomeration of powder to pellets from 130 to 160°C
Injection moulding or extrusion at 130-160°C
Dry air drying at max. 50°C

**Storage/Instruction**

Avoid heat and moisture, storage in original containers only
Do not heat melt above 90°C over long time

# CAPROWAX P™ NF  compostable of course

# CAPROWAX P™ 6006-C65-NF5920 NF-BioComposite

Application: Nature-Fibre-Bio-Composites, Dry-Blend-Powder-Coating Sinter- and Carrier material



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| Physical Properties | | | |
|---|---|---|---|
| Physical form | | | Powder, extra fine-grained <500 µm (98%) |
| Cellulose content | | % | 20 |
| Cellulose particles d50 | | µm | 248 |
| Bulk density | | g/l | 428 |
| Residual humidity | | % | <4 |
| Softening Temperature | DSC | °C (°F) | 57-63 (135-145) |

*) Based on the biological sources of waxes different values of viscosity could be occur
Tensile strength and elongation are dependent of temperature and stretching conditions
Measurements make only sense with comparable process conditions and thickness of moulded or stretched articles

**Description of free flowing, thermoplastic NF-Bio-Composite-Dry-Blend-Powder**

CAPROWAX P™ 6006-C65-NF5920 is an extra fine-grained dry-blend-mixture of compostable binding agent CAPROWAX P 6006-C65 (intermediate) and 20 % microcristalline cellulose
84,6 % of organic carbon are biobased (calculated)
All components comply the specification of DIN EN 13432

**Advantages of binding agent CAPROWAX P 6006-C65**

consists of aliphatic – biodegradable MARINE, home/industrial compostable - certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil.
Manufactured in form of powdered intermediate, comparable with

Certificate No.: P31/029-05

CAPROWAX P® 6006 DIN EN 13432 tested by MFPA Weimar

**No food and feeding stuff Ecofriendly composition**

GM-free, no content of starch or PLA
Without content of aromatic or nitrogeneous substances
Free colour design with white fibres

**Applications**

BioComposites, Sinter- and Carrier material, Textile coating,
Suited for compostable one way products
Bio-NFC, cups, trays, plates, decor, sandwiches, textiles
Pellets for fixed bed, consumable bioreactors, sintered core material, thermoplastic NatureFibre-Bio-Prepregs
In pelletized form: Injection moulding or other thermoforming

**NF-BioComposites with sintering or extrusion**

The product is only created when heated to at least 160°C
Order of process management for Bio-NFC and Bio-WPC:
Powder scattering / dosing / coating
Drying at 70-80°C by bottom heat, IR or Microwave
Deaeration/Compacting at 80°C / pressureless sintering at 100-160°C
Cooling down / Grouting at 100-130°C / Cooling down <40°C
Mold cooling at 15°C / Demolding or strain <40°C
Calendering to Bio-NFC/Bio-WPC-Sheets at 100-80°C
Bio-NFC and Bio-WPC thermoforming at 80–100°C.
Compounding or agglomeration of powder to pellets from 130 to 160°C
Injection moulding or extrusion at 130-160°C
Dry air drying at max. 50°C

**Storage/Instruction**

Avoid heat and moisture, storage in original containers only
Do not heat melt above 90°C over long time

## CAPROWAX P™ NF compostable of course

# CAPROWAX P™ 6006-C65-NF5940 NF-BioComposite

Application: Nature-Fibre-Bio-Composites, Dry-Blend-Powder-Coating
Sinter- and Carrier material



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D 60437 Frankfurt am Main

| Physical Properties | | | |
|---|---|---|---|
| Physical form | | | Powder, extra fine-grained <500 µm (98%) |
| Cellulose content | | % | 40 |
| Cellulose particles d50 | | µm | 248 |
| Residual humidity | | % | <4 |
| Softening Temperature | DSC | °C (°F) | 57-63 (135-145) |

*) Based on the biological sources of waxes different values of viscosity could be occur
Tensile strength and elongation are dependent of temperature and stretching conditions
Measurements make only sense with comparable process conditions and thickness of moulded or stretched articles

**Description of free flowing, thermoplastic NF-Bio-Composite-Dry-Blend-Powder**

CAPROWAX P™ 6006-C65-NF5940 is an extra fine-grained dry-blend-mixture of compostable binding agent CAPROWAX P 6006-C65 (intermediate) and 40 % microcristalline cellulose
86 % of organic carbon are biobased (calculated)
All components comply the specification of DIN EN 13432

**Advantages of binding agent CAPROWAX P 6006-C65**

consists of aliphatic – biodegradable MARINE, home/industrial compostable - certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil.
Manufactured in form of powdered intermediate, comparable with

Certificate No.: P31/029-05

CAPROWAX P® 6006 DIN EN 13432 tested by MFPA Weimar

**No food and feeding stuff Ecofriendly composition**

GM-free, no content of starch or PLA
Without content of aromatic or nitrogeneous substances
Free colour design with white fibres

**Applications**

BioComposites, Sinter- and Carrier material, Textile coating,
Suited for compostable one way products
Bio-NFC, cups, trays, plates, decor, sandwiches, textiles
Pellets for fixed bed, consumable bioreactors, sintered core material, thermoplastic NatureFibre-Bio-Prepregs
In pelletized form: Injection moulding or other thermoforming

**NF-BioComposites with sintering or extrusion**

The product is only created when heated to at least 160°C
Order of process management for Bio-NFC and Bio-WPC:
Powder scattering / dosing / coating
Drying at 70-80°C by bottom heat, IR or Microwave
Deaeration/Compacting at 80°C / pressureless sintering at 100-160°C
Cooling down / Grouting at 100-130°C / Cooling down <40°C
Mold cooling at 15°C / Demolding or strain <40°C
Calendering to Bio-NFC/Bio-WPC-Sheets at 100-70°C
Bio-NFC and Bio-WPC thermoforming at 80–100°C.
Compounding or agglomeration of powder to pellets from 130 to 160°C
Injection moulding or extrusion at 130-160°C
Dry air drying at max. 50°C

**Storage/Instruction**

Avoid heat and moisture, storage in original containers only
Do not heat melt above 90°C over long time

## CAPROWAX P™ NF compostable of course