

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

10/2021

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 % microcrystalline 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, 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 nitrogenous 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.

Thermoplastic agglomeration of powder to pellets 100-160°C

Injection moulding or extrusion at 130-160°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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Product Information

10/2021

Polymer and Product Development

Talstrasse 83

D 60437 Frankfurt am Main

Physical Properties

Physical form			Powder, extra fine-grained <500 µm (98%)
Cellulose content	%		20
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-NF5920 is an extra fine-grained dry-blend-mixture of compostable binding agent CAPROWAX P 6006-C65 (intermediate) and 20 % microcrystalline 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, 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 nitrogenous 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.

Thermoplastic agglomeration of powder to pellets 100-160°C

Injection moulding or extrusion at 130-160°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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Product Information

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Polymer and Product Development

Talstrasse 83

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 % microcrystalline 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, 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 nitrogenous 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.
Thermoplastic agglomeration of powder to pellets 100-160°C
Injection moulding or extrusion at 130-160°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