CAPROWAX P™

The biodegradable, thermoplastic material system is particularly suitable for the cycle of matter for use in agriculture, horticulture, landscaping, nursery, viniculture, greenhouse, floristry, forestry, waste water treatment. Range of total organic carbon is 63-73 %, thereof are >80% biobased carbon from genetic engineering free plants. Primarily no content of foods and feeding stuff

The CAPROWAX P™ material is waterproof and consist of aliphatic – biodegradable MARINE, home/industrial compostable – certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil.

Masterbatches

BioMineralComposite

Monofilaments

Textile Systems

InjectionMoulding

NF-BioComposites

Thermoforming

Blow moulding

CAPROWAX P™ 6006-00-000

Compostable material proofed according to DIN EN 13432, layer thickness 500µm, by MFPA, official material test establishment of Bauhaus- University Weimar (Germany)

Test material:	CAPROWAX P® 6006-00-000
Test report (german) on request:	Nr. B31/188-05
Test certificate (english):	No. P31/029-05 (see page 5)

Albrecht Dinkelaker
Polymer and Product Development

info(at)polyfea2.de

www.caprowax-p.eu

Most recent amendment of CAPROWAX P™-Brochure: June 14th 2024

CAPROWAX P™ compostable of course BOW RAIN SOIL

Stable in use, thereafter degrades in compost

Products Properties Advantages

- Masterbatches for bioplastics, biocomposites, filaments:
- Without addition of Titanium Dioxide, soil improving pigments

  CO2 long-term fixation by vegetable carbon/lava rock flour
- CAPROWAX P™ BioMineral- and NF-Bio-Composites
- Monofilaments and textile systems, plastic films
- Injection- and blow moulding, thermoforming sheet
- Compounds with custom-designed additives
- Hotmelt, binding agent, substrate
- Thermoplastic plasticine, modelling, joint sealer
- Plastisation of bioplastics, coloured imitations stones
- Hydrophobising of water sensitive bioplastics
- Water proofed, tensile, stable in use
- No tendency to mildewing
- Tearproof and cold-flexible after stretching
- Processing without pre-drying: 80°-150°C
- Free of aromatics and nitrogeneous substances
- GM-Free, no content of starch or PLA
- Primarily no content of foods and feeding stuff
- CAPROWAX P™ 6006 according to DIN EN 13432
- Range of total carbon: 63-73%* *) calculated
- thereof 80-90%* carbon are from biobased resources
- After composting pH-value 7 – 8
- Disposal of latent heat storage at 63–50 °C

Products made of CAPROWAX P™

Product surfaces of CAPROWAX P™-Material are self-cleaning with water/rain just like lotus flowers. Quick degradation in compost or slow rotting in soil works into biomass, mixtures of soil-similar, mineral, inorganic substances, carbon dioxide and water. In the course of composting the brown to black colour of compost or humus change over to the coloured bioplastic and the colourful appearance disappears.

CAPROWAX P™ compostable of course

BOW RAIN SOIL

The most important advantages of CAPROWAX P™

CAPROWAX P™- materials are processible like plastics and contain by the majority parts biobased vegetable carbon. The processing without predrying under moderate temperatures, low shear rates and pressures is especially suited for nature fabrics and heat-sensitve additives. The stability against water or mildewing and the balanced combination of stable in use, composting and rotting is exemplary.

Ecofriendly, mainly no content of food in raw material Manufacturing of BioCAPROWAX P™ is feasible

CAPROWAX P™-Compounds consist of aliphatic, marine/home/industrial compostable certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil. Ecofriendly: "Free of aromatics and nitrogen, renewable raw materials without genetically modified growing".
No content of starch or PLA. The plant oil content no food and fodder and is gained from oil plant for technical applications.
The applied aliphatic polyesters could be processed from biomass like renewable cellulose-/hemicellulose-material. By modification, the renewable platform chemical 5-Hydroxymethylfurfural makes it possible to get BioCAPROWAX P™

CAPROWAX P™ compostable of course BOW RAIN SOIL

Compostable material proofed by MFPA

CAPROWAX P™ 6006-00-000 is a compostable material according to DIN EN 13432 (layer thickness up to 500 µm)
Testmaterial: CAPROWAX P® 6006-00-000 proofed by MFPA, the official material test establishment of the Bauhaus-University Weimar.
Especially attention to the quality of raw material and products and rely on in all confidence with suppliers amd customers. There is an abdication of registration and control as compostable material for reasons of cost.
The proof of compostability, according to DIN EN 13432, is documented by the official material test establishment MFPA of Bauhaus-University Weimar in Germany. Test certificate No. P 31/029-05 see on page 5.
Under anoxic/denitrifying conditions degradation occurs fully as well.

Masterbatches: for colouration of bioplastics, biocomposites, filaments: Such as: PLA, PBS, PHA, PCL, CAPROWAX P™/Blends/BioMineralComposites, Bio-NFC, Bio-WPC, Polysaccharides/Derivate, Casein, PVAc/Bioplasticblends, Bio-TPE, Bio-UPR, NIPU. As colourants are used biobased, bio-mineral, soil improving and harmless, inorganic pigments. The palette of masterbatches is changed to the eco- and soil friendly, pigmentlike Kaolin, calcined (FK) as white pigment. A sustainable, moderate and lightfast brightening without addition of TiO2 is possible. The carrier material is compostable and waterproof. Colouration of bioplastics comply the specifications of DIN EN 13432. Colourations with natural, biomineral Calcite support biogenic weathering in soil and waters. Compostable carrier material CAPROWAX P 6006-C65 (Intermediate), based on CAPROWAX P™ 6006, according to DIN EN 13432, see page 1 and 7 also. After a successful test with selected samples customers request will be coordinated with toll manufacturer. You can order masterbatches – manufactured batchwise +/- 25kg in a range of 100 kg, 200 kg and 500 kg .(page 7 to 9, 17)

Customer projects with basic material CAPROWAX P™

In a project with customers CAPROWAX P™-Compounds are produced in form of pellets, powder-mixtures with nature fibres and compounds with custom-designed additives. Further information page 11-16. To know material properties about you can order a lab prototype a 300g,fragmented or powder.

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D 60437 Frankfurt am Main Fon:0049 69 76 89 39 10

MATERIALFORSCHUNGS- UND -PRÜFANSTALT AN DER BAUHAUS-UNIVERSITÄT WEIMAR

Department: Department of Environment
Head of Department: Prof. Dr.-Ing. J. Londong
Department Manager: Dipl.-Ing. J. Müller

AMTLICHE PRÜFSTELLE
Akkreditiertes Prüflaboratorium

MFPA Weimar
Amalienstraße 13
99423 Weimar
Germany
Phone. 03643 / 564 353
Fax. 03643 / 564 201

Test certificate No. P 31/029-05

Order: Test of a biodegradable polymer / wax-compound CAPROWAX P ® 6006-00-000 to German Institute for Standardization DIN EN 13432 with the proof of the disintegration in a bench-scale test (A.3), proof of the quality of the composts (8.), including the ecotoxicological harmless state (A.4)

Customer: POLYFEA Polymer- und Produktentwicklung Albrecht Dinkelaker
Ernst-Wiss-Str. 18
65933 Frankfurt / Main

Order date: 04.11.2004

Test object: CAPROWAX P® 6006-00-000
foil 500 µm / KW 42 / 2004 (foil 1), MFPA-No. BAW 4869

CAPROWAX P® 6006-00-000
powder < 750 µm / 06.11.03 MFPA-No. BAW 4869

Test condition: Test duration 12 weeks, 1 week at temperature of approximately 65 °C, 11 weeks at temperature of approximately 45 °C

Test criterion: Degradation of the BAW > 90%, ecotoxicological harmless state compared to compost material, compost quality

Test period: 23.11.04 – 16.02.05

Test results: The examined material samples fulfil the criteria of the disintegration for the aerobic process of composting. The examined material CAPROWAX P ® 6006-00-000 with a foil strength of 500 µm was degraded with several routine tests in each case to more than 90% within 12 weeks.

After ending of the test period the measuring results of the compost corresponded to the usual averages of the RAL quality tests. Significant differences as a result of BAW addition were not found. The comparison with the authoritative control samples revealed no higher heavy metal content. At the end the compost was rotted sufficiently.

A detailed test report to the investigations was given at MFPA Weimar (No. B 31/188-05).

Weimar,
2005-06-02

Prof. Dr.-Ing. J. Bergmann
Scientific Director

Dipl.-Ing. J. Müller
Project Manager

CAPROWAX P Network

Strong partners to get CAPROWAX P™-Material

CAPROWAX P-Masterbatches
with compostable carrier material

- Contract manufacturing

Pellets and NF-Powdermix for customer projects

- Contract manufacturing

Quality, Development and Analytic

- 2 analytical laboratory for plastic examination
- Development together with contract manufaturer

Colaboration with thermoplastic processors

- Injection moulding
- Vacuum forming

Application Tests,
Quality assureance and Compostability

- Forschungsgemeinschaft biologisch abbaubarer Werkstoffe e.V. (FBAW) Hannover
- MFPA
  Materialforschungs- und Prüfanstalt
  an der Bauhaus-Universität Weimar

Marketing development

Distributors

‹COLOURATION‹

CAPROWAX P-Masterbatches without addition of TiO2 for Bioplastics/ Biocomposites/Blends/Filaments: PLA, PBS, PHA, PCL, CAPROWAX P™/Blends, BioMineralComposites, Bio-NFC, Bio-WPC, Polysaccharides/Derivates, Casein, PVAc/Bioplastic- Blends, PVOH, Bio-TPE, Bio-UPR, NIPU. Carrier material based on CAPROWAX P™ 6006 is compostable, waterproof and according to DIN EN 13432. Customers request will be coordinated with toll manufacturer. Full covering or translucent to transparent colouration for: Injection-/Vacuum-/Blow-/Compression-Moulding, Mono-/Multifilaments, Film, Hotmelts, NF-BioComposites, Thermoplastic Plasticine, Foams, Coating Pigment are: biobased, biomineral/mineral, harmless from inorganic production with moderate, lightfast brightening without addition of Titanium Dioxide. They are harmless, lightfast, non-migratory, majority water insoluble,temperature stable, chemically comparable with natural mineral pigments, already mineralized.They are low-dusty incorporated in compostable carrier material The natural pigments used are kaolin (calcined), natural calcite, natural mica and lava rock flour from the volcanic Eifel. Masterbatches added to different bioplastics in a range of 0,5-4% can be processed at 90-200°C, short time up to 220°C. In coloured final products the content of each separate pigment is ≤1%. Colouration of bioplastics comply the specifications of DIN EN 13432.

Masterbatches for translucent colouration

CAPROWAX P™	Shade chromatic	CAPROWAX P™	Shade chromatic
Red 114 T		Red Y 121 T tex	AR
Yellow 310 T tex	AR	Green 427 T tex	
Green 413 T tex	MB500	Green 426 T tex	
Green AR 430 T tex	LP/AR	Blue AR 530 T tex	LP/AR
Blue G 511 T tex		Blue R 516 T tex	
Violet B 616 T		Violet R 617 T	
Violet B 630 T tex	LP/AR	Violet B 635 T tex	LP/AR

R: reddish Y: yellowish G: greenish B: bluish T: translucently

tex: suited for colouration of filaments LP: Laboratory prototype AR: acid resistant

MB500 = 500g sample for process engineering experiments

Addition of CAPROWAX P - Masterbatches to different bioplastics: 0,5-4%
Injection- /Vacuum- /Blow- and Compression-Moulding, Filaments,
Foils/Sheets, Hotmelts, Thermoplastic Plasticine, Foams and Coating.
All shades of colour are comparable or similar to the coloured products.

Pearlescent Masterbatches mpc *LP without addition of Titanium Dioxide

Pearl Gold light 9307		Pearlescent neutral 9002	u
Pearl Gold medium 9317	#	Pearl White 9011	u
Pearl Gold dark 9314		Pearl Silver classic V 9012	#
Pearl Red 9101		Pearl Silver silky V 9016	#
Pearl Bronze 9701		Pearl Silver grey V 9014	#

# = also for opaque or filled BioPolymers / u = matt pearlescent for all colours
V = vegetable carbon, biobased/LP = Laboratory prototype /mpc = matt pearlescent

Pigment mixtures are low-dusty incorporated in compostable carrier material and masterbatch pellets are added to different bioplastics: 2-4%.

Colourations of bioplastics comply the specifications of DIN EN 13432.

Your order for Colour-Masterbatches see page 17

CAPROWAX P™ compostable of course BOW RAIN SOIL

Masterbatches for chromatic, covering colouration

CAPROWAX P™		Shades	CAPROWAX P™		Shades
Red FK 133 tex		AR	Red FK 112		LP
Lava-Red 134	QX	LP	Red FK 117		LP/AR
Orange FK 204		LP/AR	Orange FK 203		LP/AR
Orange 206 BM	QX	LP/AR	Orange FK 205		LP/AR
Yellow FK 320		LP/AR	Yellow FK 306		LP/AR
Yellow 314 BM	QX	LP/AR	Yellow FK 312		LP/AR
White C 004 BM	QX	MB500	White FK 005 tex		MB500/AR
Grün 416 tex			Grün 417 tex		
Grün FK 446 tex		LP	Grün FK 440 tex		LP
Grün 444 BM	QX	MB500	Grün FK 443 tex		LP
Blue FK G 510 tex		LP	Blue G 545 BM	QX	LP
Blue FK G 512		MB 500	Blue FK G 509		LP
Violet FK B 605		LP/AR	Blue FK R 542		LP
Violet B 636 BM	QX	AR	Violet FK R 608		LP/AR
Brown V 713 BM	QX	LP	Violet R 637 BM	QX	AR
Brown FK V 709	QX	LP	Brown V 724 BM	QX	LP/AR
Lava-Brown 717	QX	LP/AR	Brown FK V 711	QX	LP
Grey 821 BM	QX		Lava-Brown 715	QX	LP/AR
Lava-Grey FK 833	QX	LP	Grey FK 824 S wcb tex		LP/AR
Black 801 wcb		AR	Black V 804	QX	AR
Black V 8121	QX	LP/AR	Lava-Black 806	QX	LP
BioMineralComposite direct compound BM42030			Black V 8117	QX	AR

AR = acid-stable S: heat stable up to 220°C wcb = without carbon black LP: Laboratory Prototype
R: reddish G: greenish B: bluish MB500 = for process engineering experiments

Products QX for soil improvement and fertility:

QX = Soil improvement, water retention capacity, fertility
V = Biobased: Vegetable carbon from coconut shells/Activated carbon from wood
BM = BioMineral, natural Calcite, acid-binding and soil similar
Lava = Lava rock flour volcanic eifel
FK = Moderate brightening with the eco-friendly, pigmentlike, Kaolin (calcined)
Addition of CAPROWAX P - Masterbatches to different bioplastics: 0,5-4/6%.

CO2 long-term fixation by vegetable carbon/lava rock flour

CAPROWAX P™ compostable of course

BOW RAIN SOIL

Thermoplastic BioMineralComposites

BioMineralComposites with different content of natural Calcite

CAPROWAX P™ 6006-C65-BM42030
CAPROWAX P™ 6006-C65-BM42100
CAPROWAX P™ 6006-C65-BM42150

Description	CAPROWAX P™ 6006-C65-BM42xxx content 3-15% harmless, soil-similar, acid-binding, natural Biomineral Calcite
Compostable, waterproof binder CAPROWAX P™ 6006-C65:	consists of aliphatic – biodegradable MARINE, home/industrial compostable – certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil. Products comply the specifications of DIN EN 13432
Injection moulding 0,5-3mm	Plastification without predrying 130°C, die 130°C, mould 15°C
Blow moulding Wall thickness 1-2 mm	Plastification without predrying 100-130°C, parison die 70-100°C, mould 15°C
Deep drawing, sheets, foils Orientation values Wall thickness 1-2 mm	Extrusion without predrying 160-130°C, melting calender <100°C or slot die <130°C, cool-/discharge roller 15°C Preheating sheets/foils 75-90°C , mould 15°C
3D printing with pellets	Extrusion 100-150°C, die 100-150°C, cold air cooling 15°C
Examples of application Suited for compostable and rotten products after use	Products of injection moulding and vacuum forming, sheets, composites, foils, support material, substrate, frisbee disk, cans, plant plug signs, garden decor, soap dish, edge protection trays, wicker ribbons, bark beetle trap, stone dummy.
Colouration see page 7-9	
Order quantities	0,3-2 kg sample free, 100 kg minimum order

CAPROWAX P™ compostable of course

BOW RAIN SOIL

BioMineralComposite CAPROWAX P™ 6006-C65-BM4225
coloured stones imitation, garden ornamental gravels, melting granules

Description Compostable, waterproof binder CAPROWAX P™ 6006-C65:	CAPROWAX P™ 6006-C65-BM4225 contents 25% harmless, soil-similar, acid-binding, natural Biomineral Calcite consists of aliphatic - biodegradable MARINE, home/industrial compostable - certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil. Products comply the specifications of DIN EN 13432
Moulded freely thermo-plasticine !!! Wear protective gloves !!!	Pellets on non-stick panel at 90-100°C preheating, after cooling down to 70-80°C shaping/kneading to shapings
Injection moulding of calcite coloured stones imitations	Plastification without predrying 130°C, die 130°C, mould 15°C
Melt granules 1,5-3,5 mm for one-/multilayered pictures !!! Wear protective gloves !!!	In non-stick pans strewing melt granules-pictures free or with templates, after moving templates, melting on a hotplate at 100°C and cool down to room temperature
Examples of application Suited for compostable and rotten products after use	Calcite coloured stones imitations, deco granules, melting granules garden ornamental gravels, garden decor, letters, substrate Colouration with CAPROWAX P-Masterbatches
Colouration with eco-/soil friendly pigments	Ultramarine, Iron Oxide, Manganviolet, vegetable Carbon Brightening with Kaolin (calcined)
Order quantities	5 kg test material, 100 kg minimum order

Colouration of all BioMineralComposites with Masterbatches of Ultramarine, Iron oxides, Mangan violet, vegetable Carbon, Kaolin (calcined) and compostable carrier material.

See pages: 7-9

Your order for BioMineralcomposites see page 17

Project Hydrophobicity

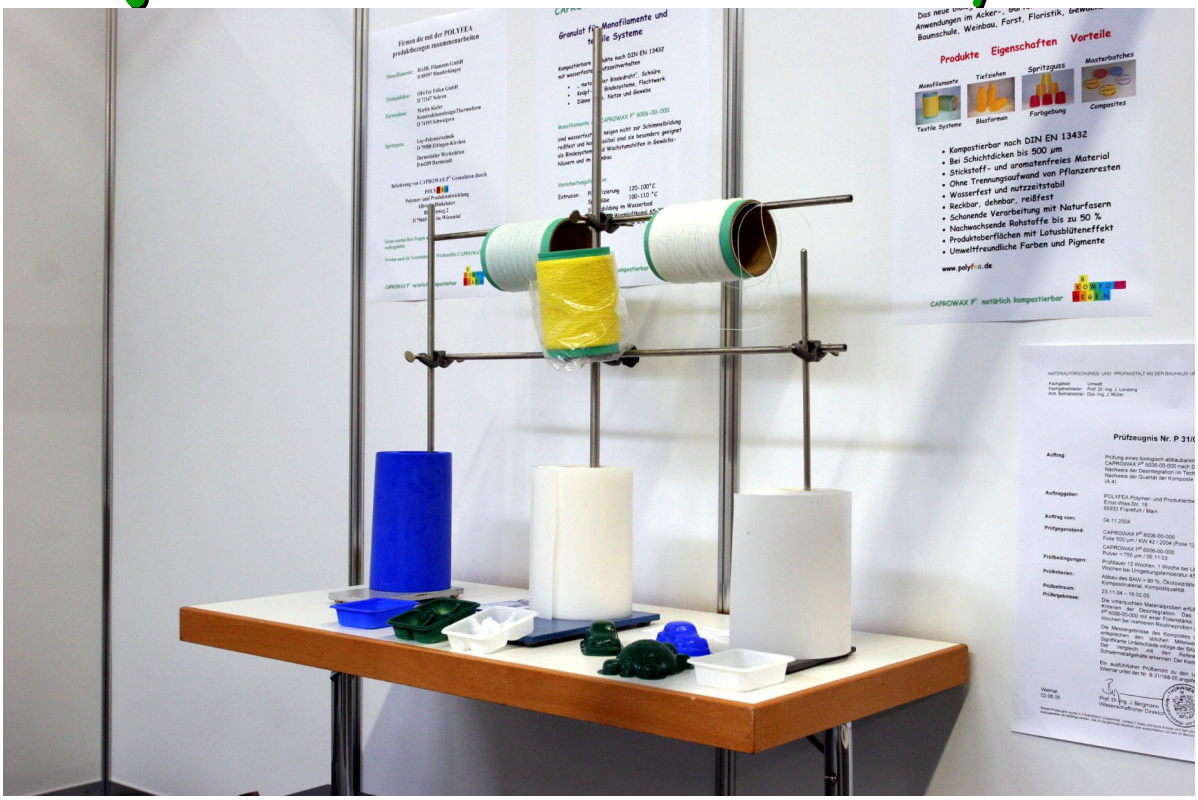
CAPROWAX P™ 6002-00-000 pellets

CAPROWAX P™ 6077-1004 pellets

for compounds to hydrophobize watersensitive bioplastic

Key word	Sector	Product application
Agro tec	Horticulture Agriculture Nursery Greenhouse Floristic	Vacuum forming, Nature fibres-sheet mould composites Sandwich sheets Sinter material Core material
Packing tec	Packing	Vacuum forming, Nature fibres-sheet mould composites Sinter material, Core material Card board boxl Kartonage
	Prepregs Pre-product	Composites sensitive to water

Project Monofilaments/Textile Systems



CAPROWAX P™ 6006-00-000

is a compostable material according to DIN EN 13432 (Test material: CAPROWAX P®6006-00-000 layer thickness 500 µm) proofed, by MFPA, the official material test establishment of the Bauhaus-University Weimar in Germany.

- **for monofilaments and textile systems**

A 6 to 7-fold stretching process reached strength of 130–140 N/mm^2.Suitable as „no metallic binding wire", strings, tracery, knotted and bound systems, thin ropes, webs and fabrics

- **as plasticiser for brittle bioplastics**

available as lab sample

CAPROWAX P™ compostable of course BOW RAIN SOIL

Project: Hotmelt, Binder, Carrier/Substrate

CAPROWAX P™ 6006-00-000 Pellets

a compostable material according to DIN EN 13432

Test material: CAPROWAX P®6006-00-000 proofed, by MFPA, the official material test establishment of the Bauhaus-University Weimar in Germany. (layer thickness 500 µm)

Processing by sintering or binding of fibres, textiles and sheets at 80-160 °C

Bioactive colonisation of pellets in process of waste water.

This material can be milled under liquid nitrogen to dusting powder <500µm

Key word	Sector	Product application
Agro tec	Horticulture	Vacuum forming
	Agriculture	Nature fibres sheet mould composites
	Nursery	Sandwich sheets
	Greenhouse	Sinter material / carrier material
	Floristik	Core material
	waste water	Pellets as bioaktive fix bed reactore
Packing tec	Verpackung	Vacuum forming
		Nature fibres sheet mould composites
		Sinter material, Core material
		Card board box
Others	Cemetry supplies	Vacuum forming
		Nature fibres sheet mould composites
		Sintermaterial, sandwich sheets

Project NF-BioComposites

For customer projects water proof NF-BioComposites are produced as free flowing, thermoplastic "Bio-Dry-Blends". The manufacturing is carried out with the binding agent CAPROWAX P 6006-C65 as an intermediate in powder form.

CAPROWAX P™ 6006-C65-NF40xx	cellulose fibres	(xx = 10 - 40%)
CAPROWAX P™ 6006-C65-NF59xx	microcristalline cellulose	(xx = 10 - 40%)
CAPROWAX P™ 6006-C65-NF41xx	rosin free wood fibres	(xx = 10 - 40%)

Material for different Thermoforming, Sinter-/Core material

The binding agent consists of aliphatic, home/industrial compostable, certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil and is comparable with **CAPROWAX P™ 6006-00-000**

Tested by MFPA, University Weimar, in accordance with DIN EN 13432
Test material: **CAPROWAX P® 6006-00-000**
Test certificate No.: P31/029-05

83,7 % organic carbon *) of binding-agent are from biobased resources
Advantageous, fibre-friendly processing without extrusion at 100-160°C to thermoplastic, compostable Bio-NFC or Bio-WPC. *) calculated.

Following products can be created with Bio-NFC and Bio-WPC:
Textil-/fibre composites, fibres coating, injection moulding, sandwich plates, trays, décor, sheets, composite boards, sintered compacts, core material and so on.

Optional processing without extrusion:

Dispersion, metering, powder coating, compacting, drying at 70-80°C by IR or Micro-waves, sintering/fusing 90-160°C, grouting 100-160°C / cooling down under pressure / futher thermoforming at 90–160 °C.

Injection moulding / deep drawing:

Predrying of thermally compacted, low-dust NF-BioComposite-Pellets at 50°C/12h and after that processing in a range of 130°-160°C.
Colouration with **CAPROWAX P™**-Masterbatches see under www.caprowax-p.eu

Test material available in form of a 300g / 1000g lab sample upon consulting

CAPROWAX P™ compostable of course BOW RAIN SOIL

Project CAPROWAX P™ with custom-designed additives

These applied additves are useful in the market, comparable with natural minerals and conform to DIN EN 13432 relating to toxic substances. The organic or semi-organic components, polymers and nature fibres are mostly available in the market and biodegradable. Dependant of application or custom request the additiv-compounds will be manufactured after request or are already available as testing material.

Compounds with basic materials:

CAPROWAX P™ 6002-00-000
CAPROWAX P™ 6006-00-000
CAPROWAX P 6006-C65 (Intermediate)
with following additives after consulting

Application area	Additives
Heat distortion temperature Tensile strength	Calcite, natural CaCO3, Dolomit, Iron oxides
Toughness Rigidity Ability of adhesion/tackeness Coupling agent	Silicates as talkum, china clay, bentonites, feldspar, mica
Soil improvement Water retention capacity	Vegetable carbon Lava rock flour
Viscosity Tackeness at processing Foaming	Nature fibres from wood, hemp, straw, grass, cotton etc. Citronic acid
Shore-Hardness Demoulding Release agent Biodegradability	Vegetable oil and waxes Modified vegetable oil and waxes Vegetable fattic acids and salts
	Polycondensates from vegetable oil as well as whose derivates

Project Thermo-shaping plasticine, modelling and joint sealer

CAPROWAX P™ 6070-T215 — **Testmaterial, next generation with more flexibility**

application temperatures at 65-40° C, available as laboratory prototype

CAPROWAX P™ compostable of course

BOW RAIN SOIL

Your order of CAPROWAX P™ - Masterbatches

See colour palette pages 7-9: CAPROWAX P™ + shade + code

Technical samples: You can get up to 4 samples a 50g pellets free of charge
For additional process engineering experiments
you can get 500g MB500 samples see page 7-9

New MB-Recipes: CAPROWAX P™- Button of MB-Laboratory prototypes (LP)

Market area:	European Union
Order quantities +/- 25 kg	100kg, 200kg, 500kg / batchwise manufactured by toll manufacturer
Prices:	According to offer
Payment condition:	According to offer
Delivery date:	after completely delivery of raw material to the toll manufacturer plus up to 6 – 7 weeks
Miscellaneous:	Product infos and SDS

New: CAPROWAX P™ Material BioMineralComposite

Thermoforming:	CAPROWAX P™ 6006-C65-BM42030 CAPROWAX P™ 6006-C65-BM42100 CAPROWAX P™ 6006-C65-BM42150 0,3–2 kg Testmaterial or 100kg minimum order
Melting granules coloured stones imitation	CAPROWAX P™ 6006-C65-BM4225 5kg Testmaterial or 100kg minimum order
Miscellaneous:	Product information and SDS

Project with CAPROWAX P™- basic material

Monofilaments, hotmelt, matrix:	CAPROWAX P™ 6006-00-000
Plasticine, modelling block	CAPROWAX P™ 6070-T215
Hydrophobising:	CAPROWAX P™ 6077-1004
Bio-Dry-Blend-NF-Composites:	CAPROWAX P™ 6006-65-NFxxxx
Sampling/Test material:	300g/1000g fragmented or powdered

Informations, quote requests and orders at

Albrecht Dinkelaker, Polymer and Product Development
Talstrasse 83
D 60437 Frankfurt am Main
info(at)polyfea2.de
Fon: ++49 69 76893910

Banking details/Finance office: On request VAT-No.: DE165 604 009

CAPROWAX P™ compostable of course

BOW RAIN SOIL

Processing of CAPROWAX P™ - Pellets

Injection moulding:	**Feed section**	**RT**
	Plasticising	**150-130°C**
	Die	**120-140°C**
	Mould	**10-25°C**
	Preferred layer thickness	**0,4 – 1,0 mm**
Compounds Extrusion	**Plasticising**	**140-100°C**
	Die	**80-110°C**
	Pellets by string, die-face pelletiser or by steel belt cooling	
Monofilaments	**Drying commmended**	**48-50°C/12h**
	Feed section	**RT**
	Plasticising	**120-100°C**
	Spinneret	**100-110°C**
String generation	**Water quench/cold-air-duct**	
	stretching in hot-air-duct	**65–75°C**
	Preferred layer thickness	**0,2 – 0,6 mm**
Thermoforming	**Feed section**	**RT**
	Plasticising	**110-80°C**
	flat film die	**80-90°C**
	Polishing rolls at	**10-25°C**
	Preferred layer thickness	**0,4 – 1,0 mm**
Blow moulding	**Feed section**	**RT**
	Plasticising	**120-90°C**
	Parison die	**65-80°C**
	Mould	**10-25°C**
	Preferred layer thickness	**0,4 – 0,8 mm**
Drying of pellets	**On demand at**	**48-50°C/12h**

Technical Data CAPROWAX P™ - Pellets

Properties	Units	Methods	Hydrophobicity CAPROWAX P™ 6002	Monofilaments, Hotmelt, Binder CAPROWAX P™ 6006 Injection-, Blow moulding, Foils/Sheets CAPROWAX P™6006-C65-BM42xxx
Density	**g/cc**	**ISO 1183**	**1,04-1,14**	**1,1-1,3**
Softening	**°C**	**DSC**	**56-59**	**57-63**
Vicat VST A/50	**°C**	**ISO 306**	**56**	**56 / 54**
Shore-Hardness D		**ISO 868**	**54**	**54 / 52**
Residual humidity	**%**	**70°C/2h**	**<0,2**	**<0,2**

Tensile strength and elongation are dependent from temperature and stretching conditions
***) Changes of viscosity my be occur, because of applied nature products**

CAPROWAX P™ compostable of course

BOW RAIN SOIL

Practical tests

with products from CAPROWAX P™

Usability

While 1-2 periods of growing season properties are showing a notable fastness against water, moisture and mildewing. Just so appears a good flexibility under cold conditions. Following applications year round and over a longer time are possible now, e. g. plant pots in tree nursery, guard net, harvest devices and geotextiles for landscape protection. For use in greenhouse plant it would be especially advantageous to dispose bio-waste and CAPROWAX P™- products together. After harvest without additional work of separating strings, bound system, nets, pots and trays can biodegrade in composting facilities. In case of a direct and longer contact with soil rotting occurs in space of 1-2 years.

Herbal

Comparable growing tests with plant pots from CAPROWAX P™ and polypropylen don`t show significant varieties. Development of roots, plants and flowers was comparable. CAPROWAX P™ doesn`t contain aromatic and nitrogen. Only eco friendly colours and pigments are applied.

Composting under field-grown conditions

CAPROWAX P™- materials are homogeneous, compostable from home/industrial compostable aliphatic polyester with certificate and modified, herbal, GMO-free triglycerides. Tests with plant pots from CAPROWAX P™ 6002-00-000 (layer thickness of 500 µm) under comparable conditions of DIN V 54900-3 after 12 weeks biodegradation reach 94%.

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CAPROWAX P™ compostable of course

BOW RAIN SOIL