

04-24 Info letter **CAPROWAX P** Masterbatches and Colouring

Ladies and gentlemen,

October 2024

gladly I would like to inform you of **CAPROWAX P™**- Colour Masterbatches.

Universal colour application of biopolymer/biocomposites with CAPROWAX P Masterbatches:

The palette of **CAPROWAX P™** colour masterbatches together with the compostable, waterproof carrier material **CAPROWAX P™ 6006-C65** (Intermediate) enable a moderate, eco-friendly, mineral colouration and brightening without addition of Titanium Dioxide. The biomineral, natural Calcite, is used as a white pigment with gentle covering brightening and soil improving properties. **CAPROWAX P™**- carrier material consist of aliphatic – biodegradable MARINE, home / industrial compostable - certified polyester and modified, readily biodegradable, renewable, GMO-free plant oil.

Masterbatches are suited for universal colouration of Bioplastics / Blends / Biocomposites / Filaments:

PLA, PBS, PHA, PCL, CAPROWAX P™ / Blends / BioMineralComposites, Polysaccharide/ Derivates, PVAc/Bioplastic-Blends, PVOH, Bio-NFC/WPC, Bio-UPR, Bio-TPE and NIPU.

Low-dusty incorporated in a compostable carrier material pigments are:

- calcined pigmentlike Kaolin (white pigment for moderate brightening)
- natural, biomineral Calcite (dull white pigment, acid binding)
- biobased vegetable Carbon (black pigment), CO2 long-term fixation in form of activated carbon
- Lava rock fluor is able to remove atmospheric CO2 by weathering
- Muskovit mica for matt perlescent without addition of TiO2
- harmless inorganic pigments of synthetic, aniline free production
- chromatic / achromatic and pearlescent pigments

Masterbatches for soil improvement QX:

QX = biobased carbon black, Lava rock fluor from volcanic eifel, are soil improver with water retention capacity and fertility

BM = BioMineral, natural Calcite, acid-binding and soil similar

FK = calcined Kaolin, compost friendly

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

for translucent, covering, achromatic and pearlescent colouration.

They are lightfast, non-migratory, temperature stable, insoluble in water, comparable with natural, mineral pigments and already mineralised. Masterbatch pellets are added to different bioplastics in a range of 0,5-4%. Processing range at 90-200°C, short time up 220°C. In coloured final products content of each separate coloured pigment is ≤1%. 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. Colourations with natural, bio-mineral Calcite-Masterbatches support biogenic weathering in soil and waters.

Coloured bioplastics comply the specifications of DIN EN 13432.

CAPROWAX P™ BioMineralComposite coloured direct compounds

Coloured, thermoplastic, easily demouldable. waterproof materials for biodegradable applications:

Extrusion/injection--/deep--drawing/pressing and moulded parts, stamping, roller printing, decor, 3D printing, hot melt adhesives, seals, films, natural fiber coating, surfaces/foils for intake of fats and oils. The direct compounds consist of compostable binder with calcite. Colourants made from bio-based vegetable carbon, ultramarine, non-magnetic iron oxides, manganese violet, mica and kaolin without addition of TiO2.

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Ideas increase to pellets

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