



Koster Keunen presents:
UPCYCLED WAXES

UPCYCLED | Sunflower wax

Sunflower wax consists of long chain, saturated C-42 to C-60 esters. These esters correlate to hardness, crystalline structure, and a high melting point. It functions as a strong gellant and consistency modifier in sticks and emulsions.

Why is Sunflower wax upcycled?

Sunflower wax is produced by the winterization process of sunflower oil. This means that the oil is cooled down to temperatures between 0 and 10 degrees Celsius for up to 24 hours, so that the sunflower wax crystallizes and can be collected by filtration.

For a long time the wax was considered a 'waste' by the sunflower oil industry. Now the wax has been upcycled to have many uses on its own. Sunflower wax is highly compatible

with a wide variety of oil mediums, at all usage levels. Its narrow molecular weight distribution along with a low free fatty acid level produces a natural wax with unique crystalline properties. This is critical to form oil gels in anhydrous products, adding stability and hardness/structure/thickness to final formulas. In addition, sunflower wax is an excellent starting point for replacing Ozokerites and other petrochemical waxes.





UPCYCLED | Rice bran wax

Rice bran wax is a high melting point and upcycled vegetable wax. Rice Bran Wax primarily consists of high molecular weight monoesters ranging from C-46 to C-66. Day by day it is becoming more well-known in the cosmetic market, acting as a gellant and consistency modifier.

Why is Rice bran wax upcycled?

Rice bran wax was considered waste in the Rice bran oil market and is obtained by a process called winterization (low temperatures). This process was executed during the oil processing to make the wax fraction crystallize, followed by a filtration process where the rice bran wax was separated from the oil and then it was thrown away. But, fortunately not anymore!

Rice bran wax is a potential raw material for the personal care industry, and it is used in color cosmetics, skin care and hair care products. Formulators will find out that it acts as a thickener, binder, plasticizer and gelling agent. In sticks, it contributes to hardness, texture, strength and mold release.



UPCYCLED | Orange peel wax

Everything in nature has a purpose. The peel of an orange protects the fruit from the environment and stops it from withering (or becoming dry). Orange peel wax is a soft orange vegetable wax obtained from the rind of the orange fruit after separation from orange essential oils and citrus terpenes. This upcycled wax is an emollient with excellent skin feel, contributing to barrier function and moisture regulation, offering similar protection to the human skin and hair as it does to the fruit.

A renewed life

Supporting the environment continues to be a pillar within Koster Keunen. Our scientists add environmental value by repurposing waste materials for a second life, away from the landfill. Orange peel wax comes out of the juice market in the form of peel waste. The wax comes from processing the discarded peel through water distillation (no chemical solvents), which means that a simple and green process at Koster Keunen makes the finished emollient with no waste.

Looking to replace the texture and feel of lanolin in your emulsion or anhydrous system? Orange peel wax can be a very good replacement. Please do not hesitate to contact us for more information and to see some studies.

Do you want to know more about the chemistry and main benefits of our upcycled waxes? Please do not hesitate to contact us for more information.