



## Kester Wax Series

## WAX ESTERS EXPLAINED

Ester chemistry used in personal care and cosmetics can range from oils to waxy solids depending on their molecular weight. The differences in composition will affect the product form, its properties, and its behavior in finished formulas.

*Each of Koster Keunen's  
Kester Waxes are created for  
different performances  
in finished products.*

# Kester Wax Series

## Product Guide

Koster Keunen offers a broad portfolio of naturally derived wax esters. Choose the Kester Wax based on the formula type and functional demands the project requires.

			Color Cosmetics						Skin Care						Hair Care					
			Anhydrous			Emulsions O/W			Anhydrous			Emulsions O/W			Anhydrous			Emulsions O/W		
Product	Wax Number	INCI	Efficiency	F&B	Use Level	Efficiency	F&B	Use Level	Efficiency	F&B	Use Level	Efficiency	F&B	Use Level	Efficiency	F&B	Use Level	Efficiency	F&B	Use Level
Kester K-24	6358	Lauryl Laurate	● ● ●	Slip, spread	1-50%	● ● ●	Slip, Spread	1-10%	● ● ●	Slip, spread	1-50%	● ● ●	Slip, Spread	1-10%	● ● ●	Slip, spread	1-50%	● ● ●	Slip, Spread	1-10%
Kester K-48	6120	Cetyl Palmitate		Support Structure	1-10%	● ●	Opacity	1-10%		Support Structure	1-10%	● ● ●	Opacity	1-10%		Support Structure	1-10%	● ● ●	Opacity	1-10%
Kester K-56	6128	Cetyl Stearate	●	Increase Hardness	1-10%	● ● ●	Opacity & Viscosity	1-10%	● ●	Increase Hardness	1-10%	● ● ●	Opacity & Viscosity	1-10%	● ●	Increase Hardness	1-10%	● ● ●	Opacity & Viscosity	1-10%
Kester K-59	6129	Stearyl Stearate	● ●	Secondary Structurant	1-10%	● ●	Opacity & Richness	1-10%	● ●	Secondary Structurant	1-10%	● ● ●	Opacity & Richness	1-10%	● ●	Secondary Structurant	1-10%	● ● ●	Opacity & Richness	1-10%
Kester K-60P	484	Polyhydroxystearic Acid	● ● ●	Plasticizer	1-25%	● ●	Creaminess	1-5%	● ● ●	Plasticizer	1-25%	● ●	Reduce Slip Creaminess	1-5%	● ● ●	Plasticizer	1-25%	● ●	Natural Fixative Creaminess	1-5%
Kester K-62	130	Stearyl Behenate	● ● ●	Primary Structurant	Primary 15-20% Secondary <5%		Reduces Viscosity	1-5%	● ● ●	Primary Structurant	Primary 15-20% Secondary <5%		Reduces Viscosity	1-5%	● ● ●	Primary Structurant	Primary 15-20% Secondary <5%		Reduces Viscosity	1-5%
Kester K-72	131	Behenyl Behenate	● ● ●	Increases MP Structurant	1-20%		Reduces Viscosity	1-5%	● ● ●	Increases MP Structurant	1-20%		Reduces Viscosity	1-5%	● ● ●	Increases MP Structurant	1-20%		Reduces Viscosity	1-5%

### FORMULATION GUIDELINES

Each Kester Wax follow the same basic guidelines. Melt into oil phase. Best practices for working with wax chemistries is to melt 5-10 degrees over melt point.

### CLEAN BEAUTY

Approved for use\* with leading brands including but not limited to: Clean at Sephora, Credo Beauty and Whole Foods Premium Body Care.

●	GOOD
● ●	SUPERIOR
● ● ●	EXCELLENT

\* at the time of print

“ Wax esters allow specific characteristics of a formula to be designed. They are advanced tools for the chemist to shape distinct features. ”

A non-traditional wax ester, Kester Wax K-24 is a solid at room temperature with performances comparable to a liquid ester in formulations. This product will not structure systems. Kester K-24 is highly compatible in all systems, similar to most cosmetic oils and liquid esters.

### APPLICATIONS

Highly versatile ester wax that can be used in all applications including Skin Care, Hair Care, Color Cosmetics, Sunscreens, AP/DEO, Wash-off or Leave-on products. Acceptable for natural, clean beauty and vegan formulas.

### Solid to Liquid in a Blink

Kester Wax K-24 has a fast phase change allowing this ester to transition from solid to liquid instantly. The chemistry lends an initial cooling effect in some emulsion formulas, and provides that "instant slip" in formulation provided by the low melt point (25°C).

#### SKIN CARE

- Emulsions & Lotions
- Baby Care
- Face Care
- Lip Care
- AP/DEO
- Sticks & Balms
- Ointments
- Massage Oils
- Sunscreens

#### HAIR CARE

- Conditioners
- Shampoos
- Styling
- Pomades
- Clays
- Anhydrous
- Masks
- Chemical Treatments

#### COLOR COSMETICS

- Lipsticks
- Pencils
- Hot Pours
- Anhydrous
- Foundations
- Pressed Powders
- Lip Balm
- Make-up Remover

## FEATURES AND BENEFITS

- Ester
- Emollient
- Melting Texture
- Silicone Alternative
- Dry Powdery Feel
- Cooling Effect
- Reduces Greasiness

### CLEAN BEAUTY

- Natural - Plant Based
- RSPO
- Clean Beauty Approved

### PRODUCT CHARACTERISTICS

- INCI: Lauryl Laurate
- Typical Usage: 1-50%
- Form: Paste
- Package: 20kg Pail

A non-traditional wax ester, Kester Wax K-48 is a natural, plant-based ester that provides opacity, emolliency and body in both Leave-on and Wash-off formulas. This product will not structure systems. It is highly compatible in all systems.

### APPLICATIONS

Highly versatile ester wax that can be used in all applications including Skin Care, Hair Care, Color Cosmetics, Sunscreens, AP/DEO, Wash-off or Leave-on products. Acceptable for natural, clean beauty and vegan formulas.

#### Bright White Opacity

Kester Wax K-48 provides opacity in emulsions without building significant viscosity. Chemists can control opacity and support formula body without affecting thickness.

### SKIN CARE

- Conditioners
- Shampoos
- Styling
- Pomades
- Masks

### HAIR CARE

- Emulsions & Lotions
- Cleansers
- Face & Body Washes
- Baby Care
- Face Care
- Sunscreens

### COLOR COSMETICS

- Lipsticks
- Pencils
- Lip Balm
- Foundations

## FEATURES AND BENEFITS

### EMULSIONS

- Opacity
- Emulsion Gloss
- Body Not Viscosity
- Can Increase Firmness & Bounce

### ANHYDROUS

- Supports Stick Hardness
- Increases Stability
- No/Low Effect on Deposition

### CLEAN BEAUTY

- Natural - Plant Based
- RSPO
- Clean Beauty Approved

### PRODUCT CHARACTERISTICS

- INCI: Cetyl Palmitate
- Typical Usage: 1-15%
- Form: Pastille
- Package: 25KG Box





Kester Wax K-56 is a natural wax ester. In emulsions it provides viscosity, opacity, emolliency, and has thickening capabilities. It can be used in color cosmetics as well, and is highly compatible in most systems.

### APPLICATIONS

Versatile ester wax that can be used in all applications including Skin Care, Hair Care, Color Cosmetics, Sunscreens, AP/DEO, Wash-off and Leave-on products. Acceptable for natural, clean beauty and vegan formulas.

### Opacity & Viscosity in One

Kester Wax K-56 provides opacity and viscosity simultaneously in emulsions.

### SKIN CARE

- Emulsions & Lotions
- Cleansers
- Baby Care
- Face Care
- AP/DEO
- Sunscreens

### COLOR COSMETICS

- Lipsticks
- Pencils
- Hot Pours
- Anhydrous
- Lip Balms
- Foundations

### HAIR CARE

- Conditioners
- Shampoos
- Styling
- Pomades
- Masks
- Anhydrous

## FEATURES AND BENEFITS

### EMULSIONS

- Increases Viscosity
- Increases Opacity
- Creates Richer Emulsion Feel

### ANHYDROUS

- Secondary Structurant
- Increases Hardness
- Reduces Slip

### CLEAN BEAUTY

- Natural - Plant Based
- RSPO
- Clean Beauty Approved

### PRODUCT CHARACTERISTICS

- INCI: Cetyl Stearate
- Typical Usage: 1-15%
- Form: Pastille
- Package: 25kg Box



Kester Wax K-59 is a natural, plant-based wax ester. In emulsions it provides opacity, emolliency, and body and in anhydrous systems provides hardness and some structure. It is compatible in most systems.

### APPLICATIONS

Highly versatile ester wax that can be used in all applications including Skin Care, Hair Care, Color Cosmetics, Sunscreens, AP/DEO, Wash-off and Leave-on products. Acceptable for natural, clean beauty and vegan formulas.

### Bright White Opacity

Kester Wax K-59 provides opacity and increased body in emulsions without building significant viscosity. Increases richness in overall feel. Chemists can control opacity and support formula body without affecting thickness.

#### SKIN CARE

- Emulsions & Lotions
- Cleansers
- Baby Care
- Face Care
- AP/DEO
- Sunscreens

#### HAIR CARE

- Conditioners
- Shampoos
- Styling
- Pomades
- Masks
- Anhydrous

#### COLOR COSMETICS

- Lipsticks
- Pencils
- Hot Pours
- Anhydrous
- Lip Balms
- Foundations

## FEATURES AND BENEFITS

### EMULSIONS

- Opacity
- Emulsion Gloss
- Body Not Viscosity
- Can Increase Firmness & Bounce
- Creates Richer Emulsion Feel

### ANHYDROUS

- Primary Structurant (15-20%)
- Secondary Structurant (<10%)
- Increases Hardness
- Reduces Slip

### CLEAN BEAUTY

- Natural - Plant Based
- RSPO
- Clean Beauty Approved

### PRODUCT CHARACTERISTICS

- INCI: Stearyl Stearate
- Typical Usage: 1-25%
- Form: Pastille
- Package: 25KG Box

Kester Wax K-60P is a non-traditional wax ester that is a natural plasticizer with a wide melt point range of 50°-70°C. It is ideal for creating creamier textures while also increasing product stability.

### APPLICATIONS

Plasticizing ester wax that can be used in many applications including Skin Care, Hair Care, and Color Cosmetics. Acceptable for natural, clean beauty, palm-free and vegan formulas.

### Formulation Tips

Fixing a formula? Start with 3% and replace a main oil, however be aware that % usage is formula dependent and desired effect. May add some structure and thickening.

#### SKIN CARE

- Emulsions & Lotions
- Balms
- Baby Care
- Face Care
- AP/DEO
- Squeezable Anhydrous

#### HAIR CARE

- Natural Fixative
- Styling
- Pomades
- Masks
- Anhydrous

#### COLOR COSMETICS

- Lipsticks
- Pencils
- Hot Pours
- Anhydrous
- Lip Balms
- Foundations

## FEATURES AND BENEFITS

#### ALL FORMULATIONS

- Plasticizing
- Reduce Syneresis
- Texturizing
- Adds Creaminess

#### ANHYDROUS

- Reduce Sweating
- Create Creamy Texture
- Stop Graininess
- Consistency
- Soft & Stable

#### CLEAN BEAUTY

- Natural- Plant Based
- Clean Beauty Approved

#### PRODUCT CHARACTERISTICS

- INCI: Polyhydroxystearic Acid
- Typical Usage: 1-25%
- Form: Hard Paste
- Package: 20KG Pail

Kester Wax K-62 is a natural wax ester that should be used as a main or secondary structurant in anhydrous systems. It can be used in any anhydrous system and can be used at low levels in emulsions (<5%).

### APPLICATIONS

Structuring ester wax that can be used in many applications and is acceptable for natural, clean beauty, palm-free and vegan formulas.

### Natural Structurant

Kester Wax K-62 will work as both a primary or secondary structurant in anhydrous sticks and systems and has a similar melt point (62°C) to beeswax while being vegan.

### SKIN CARE

- Sticks & Balms
- AP/DEO
- Emulsions

### HAIR CARE

- Anhydrous
- Styling
- Pomades

### COLOR COSMETICS

- Lipsticks
- Pencils
- Hot Pours
- Anhydrous
- Sticks
- Balms
- Lip Balms
- Foundations

## FEATURES AND BENEFITS

### ANHYDROUS

- Primary Structurant (15-20%)
- Secondary Structurant (<5%)
- Increases Hardness
- Increases MP
- Can Increase Opacity

### EMULSIONS

- Can Reduce Viscosity
- Can Improve Slip
- No Waxy Emulsion Feel

### CLEAN BEAUTY

- Natural - Plant Based
- Clean Beauty Approved

### PRODUCT CHARACTERISTICS

- INCI: Stearyl Behenate
- Typical Usage: 1-25%
- Form: Pastille
- Package: 25KG Box





Kester Wax K-72 is a natural wax ester that increases formula melt point, improves opacity, structure and stability, and has gelling capabilities in anhydrous systems.

### APPLICATIONS

This ester wax can be used in all applications. It is acceptable for natural, clean beauty, palm-free and vegan formulas.

### Natural, Palm-Free Melt Point Increaser

Kester Wax K-72 can support your system by increasing the thermal stability and melt point of all anhydrous systems.

### SKIN CARE

- Anhydrous
- Sticks
- Balms
- Ointments
- Emulsions
- AP/DEO
- Cleansing Balms
- Sunscreens

### COLOR COSMETICS

- Lipsticks
- Pencils
- Hot Pours
- Anhydrous
- Sticks
- Balms
- Lip Balms
- Foundations

### HAIR CARE

- Styling
- Pomades
- Anhydrous

## FEATURES AND BENEFITS

### ANHYDROUS

- Increases Formula MP
- Primary Structurant (15-20%)
- Secondary Structurant (5-10%)
- Increases Hardness
- Improves Structure
- Can Increase Formula Opacity

### EMULSIONS (<5%)

- Can Reduce Viscosity
- Can Improve Slip
- No Waxy Emulsion Feel

### CLEAN BEAUTY

- Natural - Plant Based
- Clean Beauty Approved

### PRODUCT CHARACTERISTICS

- INCI: Behenyl Behenate
- Typical Usage: 1-25%
- Form: Pastille
- Package: 25KG Box



# Clean & Smooth Foundation Stick Formula

This formulation covers many trend requirements including velvety smooth coverage and one swipe application. This is a natural, clean and vegan cosmetic stick that provides buildable coverage, weightless satin finish and flexible base that can transition to many color formulations.

**Formula#: 12/18-131/286/358-10**

Procedure, stability and suppliers upon request.

Ingredient Trade Name	%
<b>Phase A</b>	
Kester Wax K-72	9.0
Kester Wax K-60P	5.0
Koster Cocoa Butter	8.0
Kester Wax K-24	6.0
Cocos Nucifera (Coconut) Oil	16.0
Dicaprylyl Carbonate	11.0
Mica	22.0
Calcium Carbonate (and) Mica (and) Lauryl Lysine	2.0
Tocopheryl Acetate	1.0
<b>Phase B</b>	
Red Iron Oxide	0.50
Yellow Iron Oxide	1.52
Black Iron Oxide	0.16
Titanium Dioxide	6.22
Caprylic/Capric Triglyceride	11.60

# Barely There Hand Lotion Formula

A natural and vegan oil-in-water emulsion with a bright white formulation that absorbs quickly with no greasiness.

**Formula # 5/21-577/128-3**

Procedure, stability and suppliers upon request.

Ingredient Trade Name	%
<b>Phase A</b>	
Deionized Water	78.5
Glycerin	4.0
Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.1
Sodium Hydroxide	0.4*
Phenoxyethanol, Caprylyl Glycol	1.0
<b>Phase B</b>	
Kostol NatureMuls	5.0
Kester Wax K-56	3.0
Kester Wax K-24	5.0
Caprylyl/Capric Triglyceride	3.0

Product	Wax Number	INCI	Non Palm*	Vegan	RSPO	REACH	Plant Derived	Kosher	Non-GMO
Kester K-24	6358	Lauryl Laurate		Yes	RSPO MB	Compliant	100%	Yes	Yes
Kester K-48	6120	Cetyl Palmitate		Yes	RSPO MB		100%	Yes	Yes
Kester K-56	6128	Cetyl Stearate		Yes	RSPO MB	Polymer Exempt	100%	Yes	Yes
Kester K-59	6129	Stearyl Stearate		Yes	RSPO MB	Compliant	100%	Yes	Yes
Kester K-60P	484	Polyhydroxystearic Acid	●	Yes	Non Palm		100%	Yes	Yes
Kester K-62	130	Stearyl Behenate	●	Yes	Non Palm	Polymer Exempt	100%	Yes	Yes
Kester K-72	131	Behenyl Behenate	●	Yes	Non Palm	Registered	100%	Yes	Yes

\*100% plant derived. Sourcing majority is castor (484) or Rapeseed/ mustard seed sourcing dictated by supply (130/131).

