

Spotlight on beautiful waterborne Alkyds



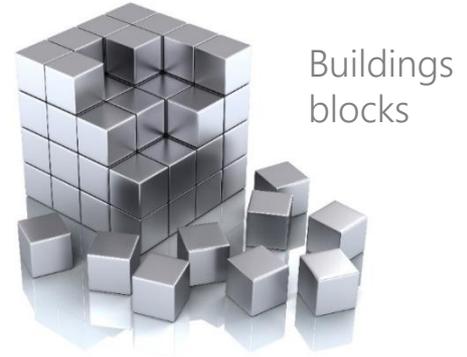
The renaissance of Alkyds

– Entering waterborne Alkyds

1. Waterborne Alkyds – the sustainable option
2. Best in wood protection
3. Even better with Perstorp's Voxtar™



Drivers



The Alkyd journey

1940's

The alkyd journey started

1960's

Focus on work-environment

1980-90's

Launch of waterborne solutions for outdoor

2005

Focus on atmosphere damaging products

2010

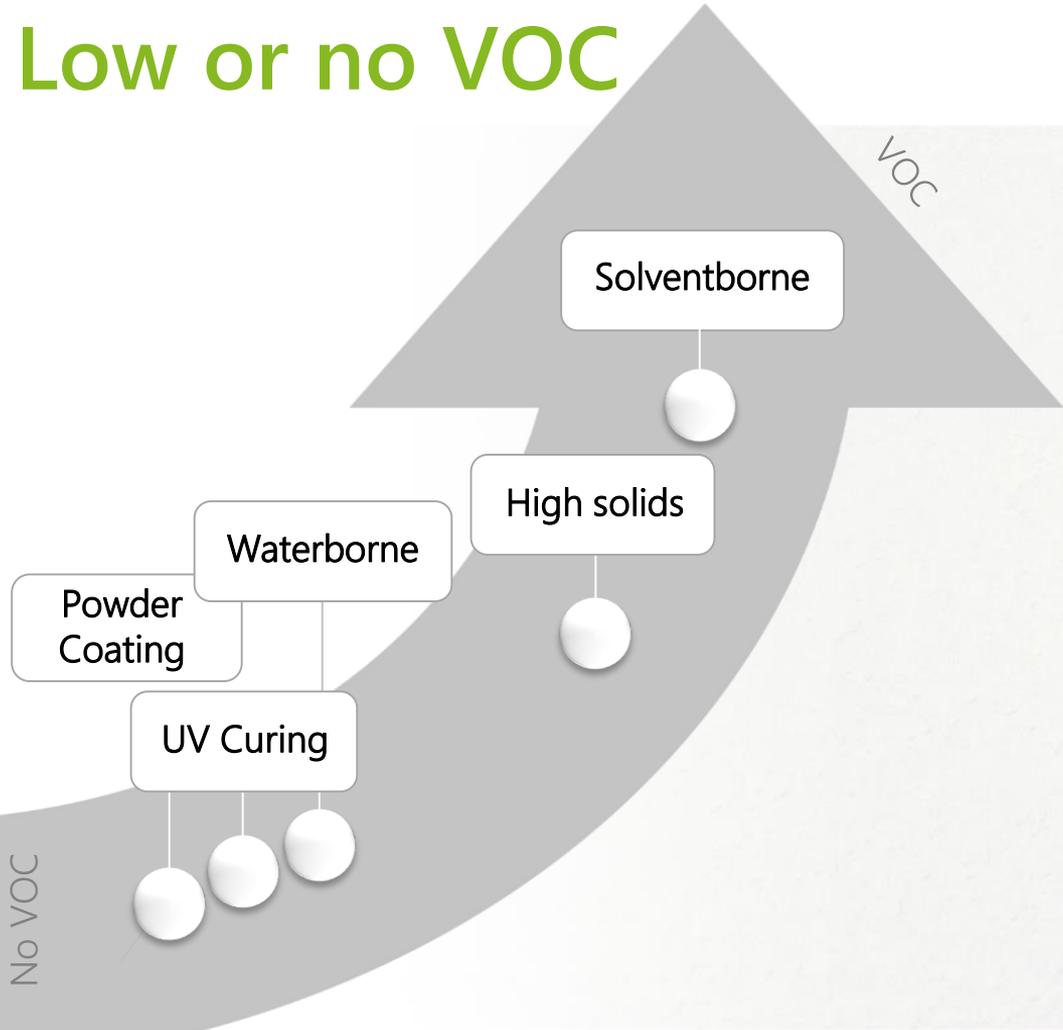
Focus on total systems

Focus now:

- ▶ VOC
- ▶ Carbon footprint
- ▶ Renewable based

Shift in focus over the years resulted in a decline in Alkyd use

Low or no VOC



Waterborne or solventborne Alkyds

Solventborne

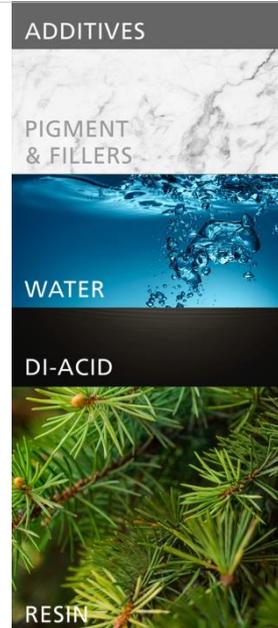
Waterborne

Resins

Coatings

Resins

Coatings

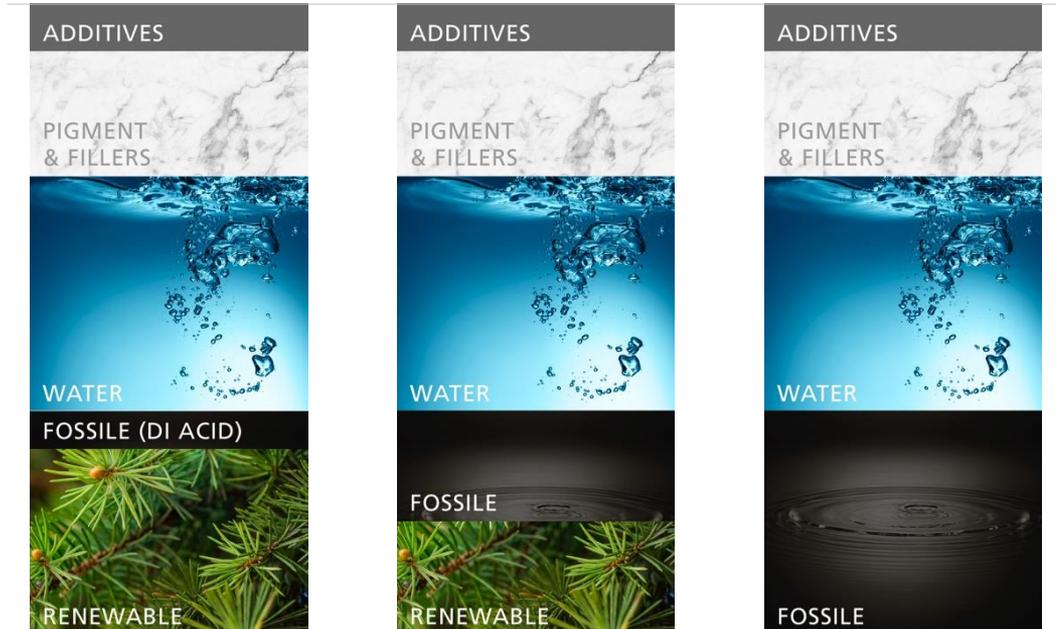


Waterborne Coatings

Alkyds

Hybrides

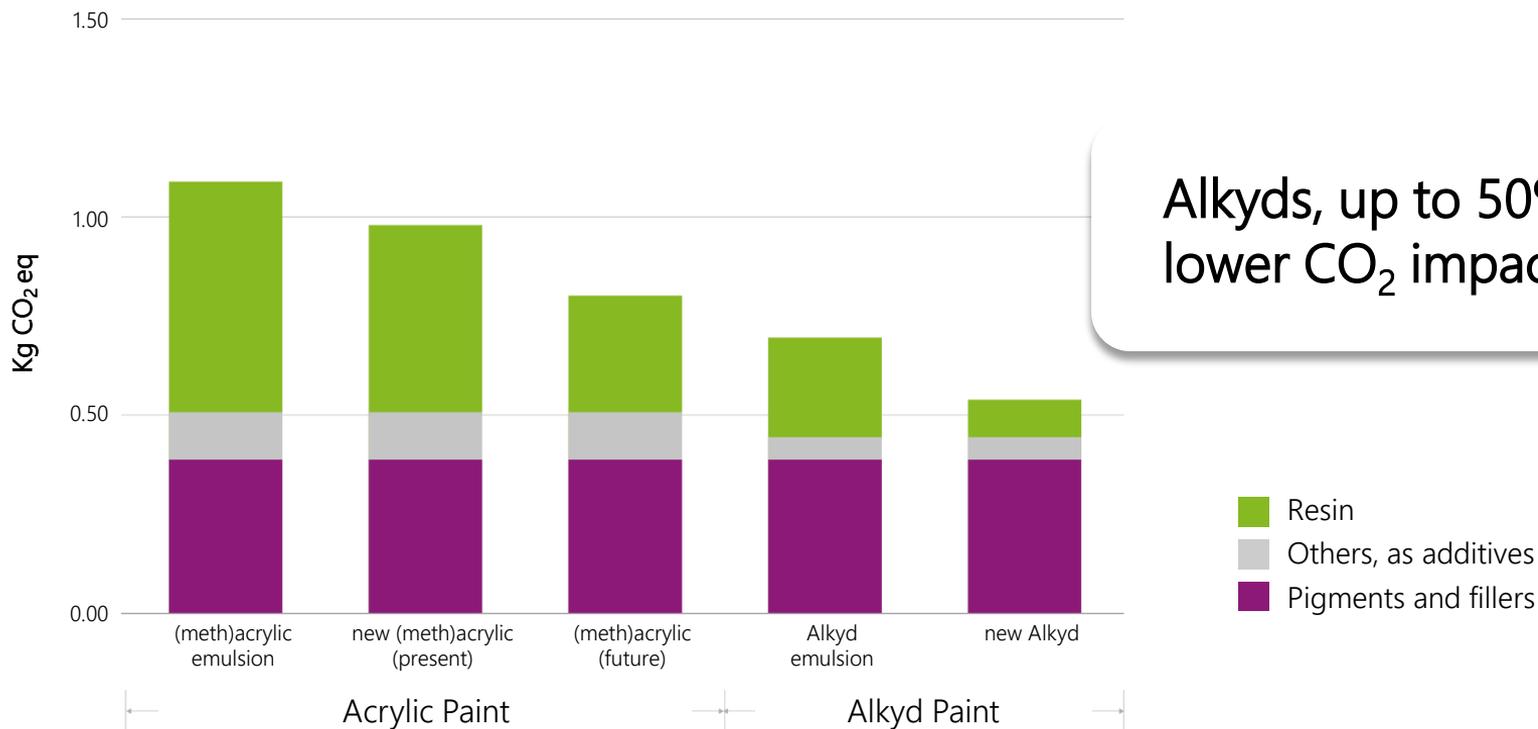
Acrylics



-  Carbonates
-  Water
-  Fossile
-  Renewable

CO₂ impact

CO₂ impact – Acrylics vs. Alkyds



Market trends and drivers

- 
- ▶ VOC, Sustainability
 - ▶ Waterborne alkyds for deco coatings
 - ▶ Renewable raw material
 - ▶ Renaissance for Alkyds
 - ▶ Increase in wood construction

High performance & environmental friendliness

The renaissance of Alkyds

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Beautiful waterborne Alkyds

→ The sustainable option
Best in wood protection
Even better with Voxtar™

Renewable raw material

Low VOC



Low carbon footprint

Outstanding wood protection

Even better with waterborne

→ The sustainable option
Best in wood protection
Even better with Voxtar™

Solventborne

In general high VOC

Cobalt (listed as carcinogenic)

MEKO (carcinogenic)



Waterborne

Low or no VOC

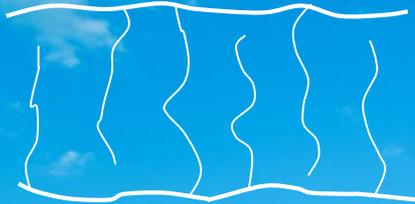
Iron complex replacing Cobalt

No MEKO

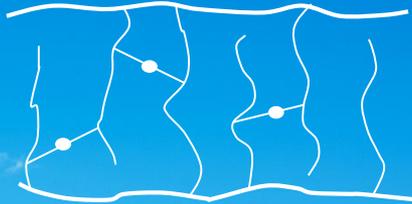
Beautiful Alkyds

→ The sustainable option
Best in wood protection
Even better with Voxtar™

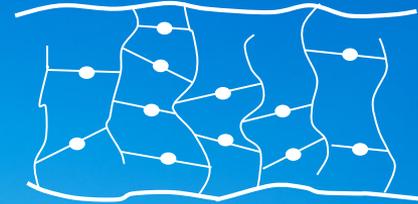
Oxidative process once paint is applied



No contact with air



In contact with air



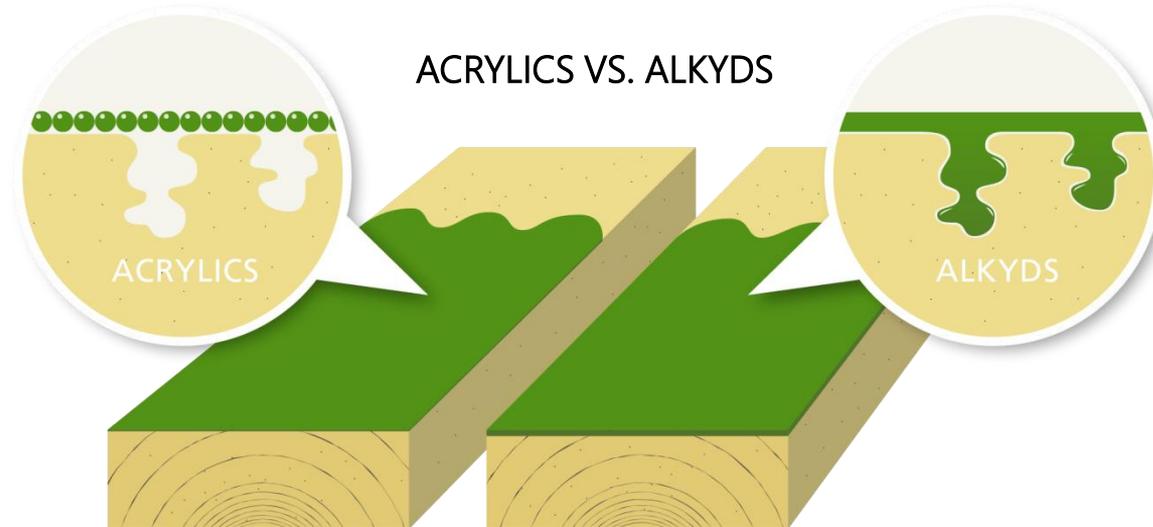
Dry

The only additive needed is air!

Best in wood protection

- ▶ Penetrates the wood for longer lasting protection
- ▶ Outstanding metal protection
- ▶ Acrylics forms a film on top of the wooden surface

The sustainable option
➔ **Best in wood protection**
Even better with Voxtar™



Even better with Voxtar™



The sustainable
option

Best in wood
protection

➔ Even better with
Voxtar™

Voxtar™

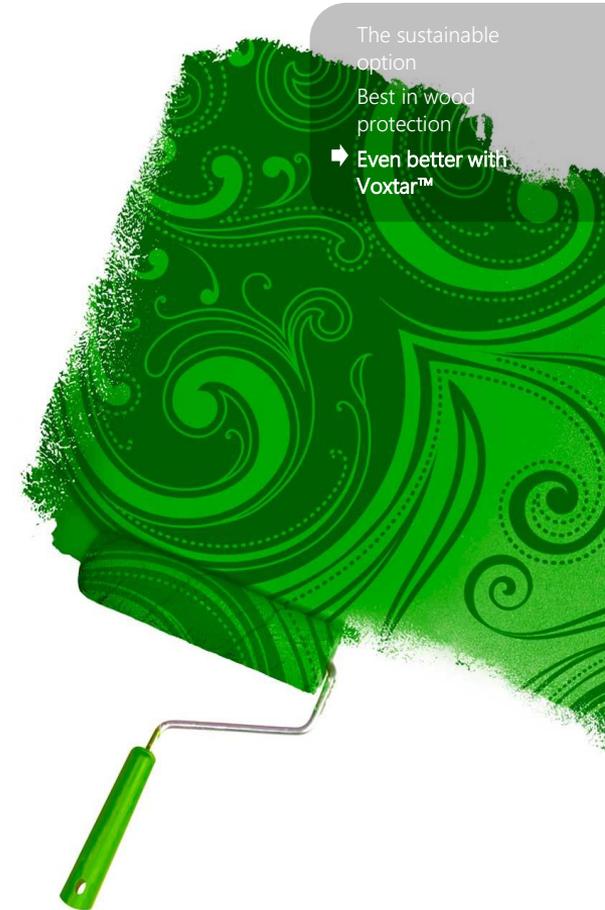
Pure advantage

Our green Penta – VOXTAR™

- ▶ Voxtar™ – Our range of renewable Penta products
- ▶ Up to 100 % renewable raw material*
- ▶ Up to 80 % lower carbon footprint**

Same trusted **efficiency, security and high performance** you expect from PENTA

* Based on a mass balance system ** Cradle to grave, compared to European average



Waterborne Alkyds

Our three developed technologies

Externally stabilized alkyd emulsion

Internal stabilized water thinnable

PUD alkyd technology

