

QUDS PAINTS TECHNOLOGY

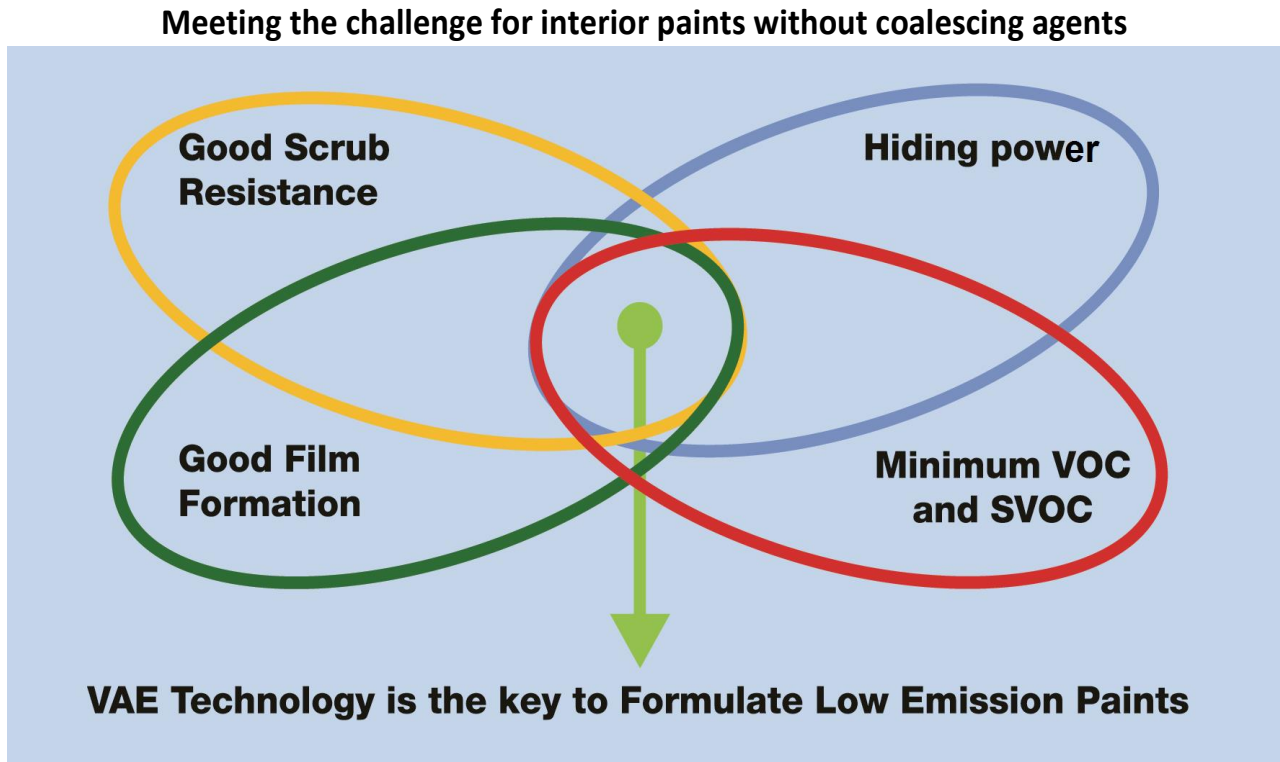
Eco Smart



Made with
VAE Technology
Low odor, low Emission
Easy to use

VAE Technology in Low Emission Paints

Paint producer are looking for a binder technology which provides good optical and mechanical properties such as opacity, gloss and wet scrub resistance without the use of coalescing agents.



Binders based on Vinyl Acetate Ethylene (VAE) meet these requirements and have established themselves as the most important technology to produce low emissions interior coatings in Europe.

Features of Vinyl Acetate Ethylene (VAE):

1. Formulation of paints without solvents and coalescing agents (**VOCs** and **SVOCs**).
2. Good opacity and excellent wet scrub resistance.
3. Preferred binder technology for low emission interior paints in Europe.
4. Good color retention and tint ability in exterior coatings.

What are VAE impacts on paint production?

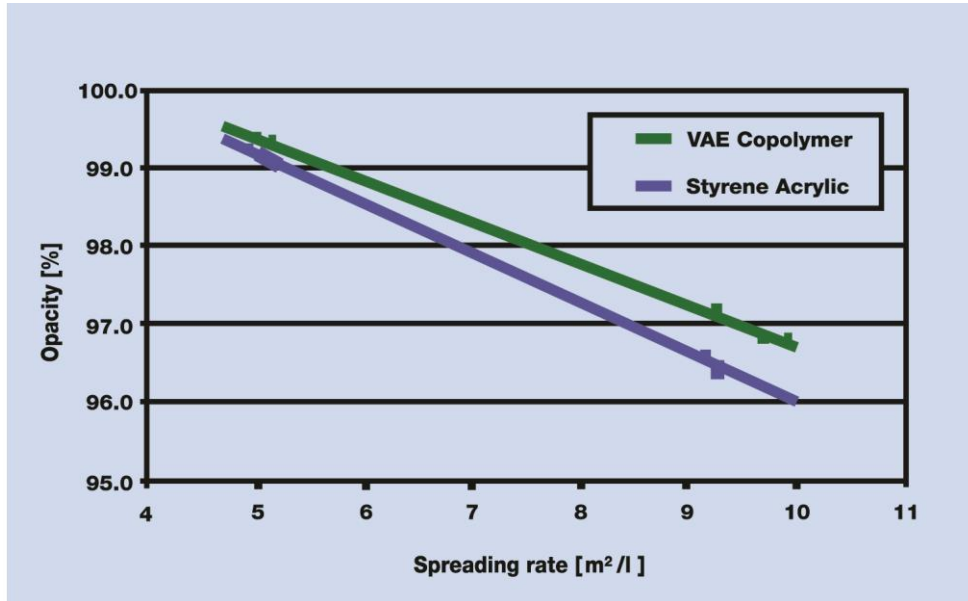
- Opacity
- Hydroplastification effect of VAE emulsions

The following figures explain the positive impact of protective colloid stabilized VAE emulsions on opacity and performance of interior paints :

- **Opacity:**

The unique Characteristics of binder VAE provides an ideal coverage in emulsions that uses this technology, and it's excels on those emulsions that used binder (Styrene Acrylics).

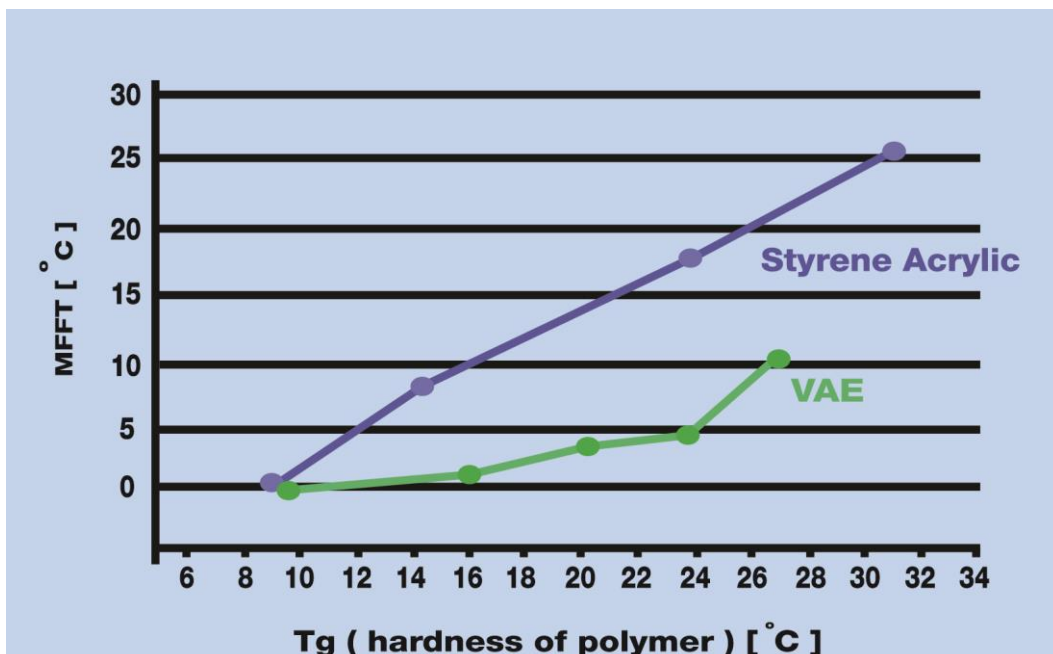
Opacity of interior paints based on different binder technologies



- **Hydroplastification effect of VAE emulsions:**

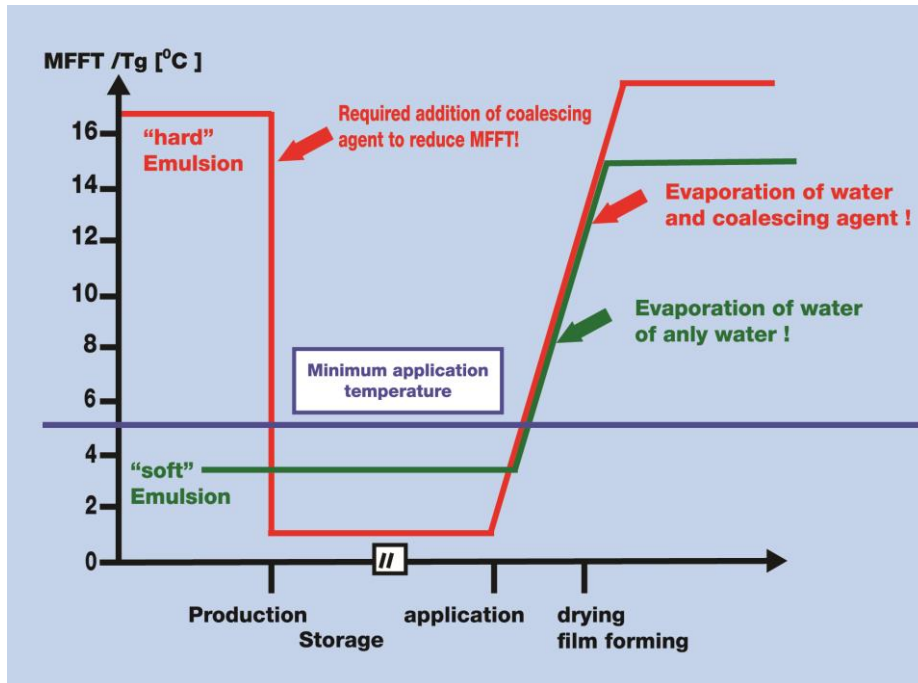
Due to this effect it is possible to achieve higher (Glass Transition Temperatures) (T_g) at the same (Minimum Film Formation Temperature) (MFFT) compared to Styrene Acrylic emulsions. This unique feature of VAE emulsions is based on hydrophilic properties of VAE copolymers and it explains why VAE emulsions have become the European standard for low emission interior paints.

Hydroplastification of VAE copolymers



Hard (Styrene Acrylics) require the addition of solvents and/or coalescing agents to reduce the (MFFT) to ensure proper film formation at application temperature .These (**VOCs/ SVOCs**) will evaporate after application Soft emulsions, like VAEs; do not need additional solvents or coalescing agents .After application, only water will evaporate while achieving the same level of hardness compared to hard Styrene Acrylic (emulsions).

Impact of solvents and coalescing agents on emissions after application



In Conclusion



Eco Smart

Better Performance

- Excellent Wet Scrub Resistance , (WSR) .
- Imporved Opacity .
- Good film hardness .
- Very good gloss .
- Good pigment stability .

Low Emissions

- No emission of solvents and plasticizers .
- Only evaporation of water .
- Compatibility with all exsting environmental demands or labels .

Low Odor

- Better indoor air quality .
- Rooms can be used directly after application .