

Nouryon

Ethylan® CDP1480

Paint, Coatings & Inks



Ethylan CDP1480 is a good replacer of NP surfactants and has very low VOC content. It is easy to handle with good foam control.

A cost efficient wetting agent for water borne paints and coatings

Ethylan CDP1480 - a versatile wetting agent

Ethylan CDP1480 is a nonionic surfactant that offers improved color acceptance in water borne paints.

Benefits when using Ethylan CDP1480

- Effective in providing good color acceptance when adding a colorant to the white base
- Capable of increasing the gloss of the paint
- Very low content of VOC
- Favorable cost in use wetting agent in water borne paint formulations
- Can be used for emulsion polymerization
- Compatible with all other surfactant types, i.e. nonionic, anionic and cationic
- Stable under alkaline and acidic conditions

Wetting performance

The wetting efficiency of Ethylan CDP1480 is at the same level as nonylphenol based wetting agents, which makes it a good replacer for NP surfactants.

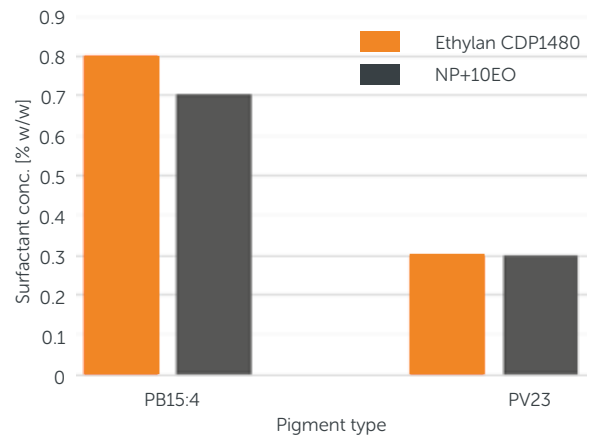


Fig 1. Amount of surfactant needed for wetting 2.5 wt% pigment in aqueous solution. Comparison of Ethylan CDP1480 with standard nonionic surfactant NP+10 EO



Applications

When used in a white base paint, the starting recommendation for dosage is 0.4% based on the total weight of the paint. It is normally recommended to add the Ethylan CDP1480 in the grind, to facilitate an improved wetting and distribution of the various surface active ingredients on the pigments.

Product data

Active content in water	80%
Color	max 100 Hazen
Cloud point (1% in 10% NaCl)	71-75°C

How surfactants work

Surfactants are surface active compounds, having a water soluble and an oil soluble part. The water soluble part of the molecule may be charged (negative: anionic or positive: cationic) or uncharged (nonionic). The oil soluble part can either be derived from natural origin (fatty) or from a fossil source (synthetic).

The surface active components that are present in paint are not just surfactants but also other ingredients:

- Surfactants added to the binder
- Surfactants added to colorants, to stabilize the pigments
- Surfactants added during the formulation
- Rheology modifiers, in particular hydrophobically modified types (large polymers)
- Dispersants (small – medium size polymers)
- Defoamers

The paint is, thus from a surface chemistry point of view a very complex system.

In order to make all these components form a stable colloidal suspension, a 'compatibilizer' is often required.

The use of a surfactant as compatibilizer facilitate the use of having multiple sourcing of polymer emulsions, colorants /pigments and rheology modifiers, as the surfactants and surface chemistry properties of these components usually differ between producers.

In the formulation of water borne paints, nonionic surfactants are often preferred. One main reason is that their action is less impacted by the presence of salts and other electrolytes, as are anionic surfactants.

Ethylan CPD1480 is a good NP replacer with a very low VOC content

For more information visit surfacechemistry.nouryon.com



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surfactants, enabling
sustainable formulations