

Nouryon

Phospholan® PE169

Paint, Coatings & Inks



Phospholan PE169 is a dispersing and emulsifying agent used for paints, pigments, resins and colorants.

An efficient dispersing agent, free from VOC

Phospholan PE169 - a versatile additive

Phospholan PE169 is good for dispersing both organic and inorganic pigments, providing good color acceptance.

Functionality and applications

Phospholan PE169 is very versatile in its use and has a proven effect in many applications such as:

- Pigment dispersion in paints and colorants, water borne and solvent borne formulations
- Corrosion resistance additive in steel paint and coatings
- Process additive in the production of emulsion polymers, typically for paint formulations. Phospholan PE169 has a combined emulsifying and colloidal stabilizing effect.

Benefits and performance

Alkyl phenol free and contains no VOC.

Universal and water borne colorants

- Is good for dispersing all types of pigments; hydrophilic/hydrophobic, inorganic/organic, in particular it is recommended for inorganic pigments
- Provides for good color acceptance of the colorant when tinting either solvent borne or water borne white base paints

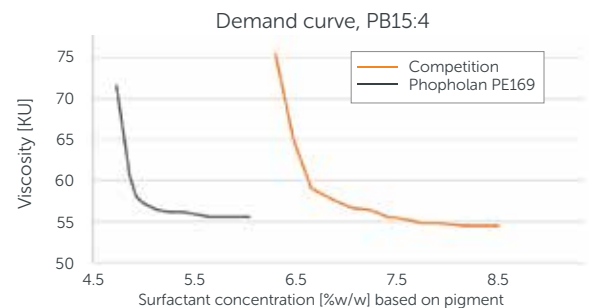


Fig 1. Comparison of surfactant demand of competitor phosphate ester with Phospholan PE169 with pigment Heliogen Blue LB L7101F (PB15:4)

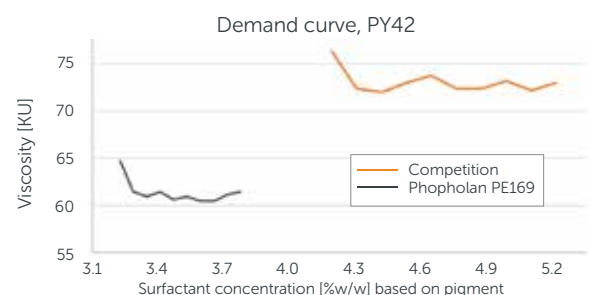


Fig 2. Comparison of surfactant demand of competitor phosphate ester with Phospholan PE169 with pigment Bayerferox 3910 (PY42)

Paints

- Improve color acceptance and increase gloss when added to water borne paints
- Enhance corrosion resistance performance of paints and coatings



Fig 3. Alkyd paint with colorant. Left can: addition of 1 wt% Phospholan PE169 added in base paint

Typical data

Active content	100%
pH, 1% in water	2.5
Viscosity	900 mPas at 20°C
Pour point	-10°C
Surface tension Du Noüy, 25°C, 0.1% DIN 53914	28 mN/m at pH 6
Wetting power Draves, 25°C, 0.1%	10 sec

Use description

Phospholan PE169 is supplied as a 100% active product, in its acid form. The product can be used either as is, or by neutralization depending on the application. The pH should be above 7 for Phospholan PE169 to be anionic, otherwise it will be nonionic.

Phospholan PE169 is used either as the single surfactant, or in combination with other nonionic, amphoteric or anionic surfactants. It can be added to paints at levels of 0.3–0.5%.

Phospholan PE169 is capable of providing some corrosion resistance on steel. The MEA or other amine neutralized version is the most effective in this respect. Recommended level of addition to the paint is 0,3-0,5%.



Fig 4. Iron oxide yellow colorant preparation with Phospholan PE169

Phospholan PE169 is a very efficient dispersing agent for a broad range of both organic and inorganic pigments

For more information visit surfacechemistry.nouryon.com



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surfactants, enabling
sustainable formulations