

Nonionic Low-foam Dynamic Wetting Agent SURFADOL® 485W

SURFADOL® 485W is a substrate wetting agent with high solubility in aqueous systems. It can also be used for its stabilization and emulsification properties.

Composition

75% active water solution
2,4,7,9-Tetramethyl-5-decyne-4,7-diol ethoxylate
CAS No: 9014-85-1

Typical properties

Chemical family	Ethoxylated acetylenic diol; Nonionic surfactant
Appearance	Yellow liquid
HLB value	17
Equilibrium surface tension (concentration 0.1%, 1b/s)	49.8 dynes/cm
Dynamic surface tension (concentration 0.1%, 6b/s)	54.7 dynes/cm
Density at 25°C, g/cm ³	1.07
Viscosity at 25°C, cps	< 350
Cloud point, °C	65 (Sodium chloride) >100 (Water)
VOC (wt %)	0
Solubility in water	Soluble
Suggested use level	0.1% - 2.0% of total formulation weight

COA specifications

Test Item	Standard
Appearance	Yellow liquid
APHA Color (Pt-Co)	≤350
Density at 25°C, g/cm ³	1.000-1.100

Special properties

- Specifically designed for water-based systems
- Reduce dynamic surface tension
- Improve wetting of various substrates and particles
- Increase hydrophilicity
- Suitable for food contact compliant formulations
- Silicone-free, APEO free, non-toxic

Examples of application

- Water-based printing inks
- Water-based adhesives
- Industrial coatings
- Wood coatings
- Architectural paints

Related ethoxylated surfactants

A variety of ethoxylated acetylenic diols can be produced from 2,4,7,9-Tetramethyl-5-decyne-4,7-diol and different amount of ethylene oxide.

SURFADOL® surfactant	Physical form	HLB value	Solubility in water
SURFADOL® 420	Light yellow liquid	4	Slightly soluble
SURFADOL® 440	Light yellow liquid	8	Slightly soluble
SURFADOL® 465	Light yellow liquid	13	Soluble
SURFADOL® 485	Yellow paste	17	Soluble
SURFADOL® 2502	Light yellow liquid	7.8	Slightly soluble

Processing instructions

- Addition to the coating as supplied or as a predilution is possible.
- Can be introduced in the grind and let-down stage.

Package and storage

The standard package for SURFADOL® 485W is 180kg plastic drums, 4 drums/pallet.

Keep containers tightly closed in a dry, cool, and well-ventilated place. Product is normally freeze-thaw stable; if it phase separates or freezes at colder temperatures, warm container to 40°C and mix thoroughly before use.

When stored in an original unopened packaging, the product has a shelf life of 48 months from the date of manufacture.