

Technical Datasheet

Liquid Coating Resins and Additives

Solvidur® AE0445-NS

Edition 05-2025

Alkyd emulsifier resin

Solvidur® AE0445-NS is a high molecular weight resin (Liquid form) having a strong emulsifying power, which breaks water into micelles, forming **water-in-oil** emulsion which becomes reducible with mineral spirits and other different types of solvents.

TYPICAL SUPPLY SPECIFICATIONS

• Solid content	45.0 ± 2.0 %
• Brookfield viscosity @ 20 °C	150.0 - 300.0 mPa.s
• Density at 23°C	1.025 kg/l
• Color	Dark Brownish Greenish

MECHANISM OF ACTION

Solvidur® AE0445-NS has hydrophilic pole (water tender) and hydrophobic pole (alkyd or oil tender) that forms steric stable colloidal suspension. This results in mechanical energy that leads to defragmentation of water molecules into fine micelles leading to suspending of water between oil molecules forming water-in-oil emulsion that could be dissolved by solvents afterward.

FORMULATION PROCEDURE

Step I: The grinding stage is processed normally

Step II: During the Let Down Process:

- 2.1. Add the rest of the alkyd
- 2.2. Solvidur® AE0445-NS is added to vortex created
- 2.3. start adding water up to required level (In shots)
- 2.4. After complete addition of water keep the system at high speed for 30 minutes
- 2.5. Adjust the viscosity with white spirit or any type of alkyd solvents

SPECIFIC ADVANTAGES

Solvidur® AE0445-NS has the following advantages in use:

Ease of application, it is added in a very minor portion (0.1 - 0.3% per total volume), it gives better opacity, whitening and gloss, it doesn't require complicated processing, results in a VOC paint system, increases the water uptake to 35.0 - 45.0% from the total volume

STORAGE

Solvidur® AE0445-NS is stable for at least 12 months when stored between +5°C and +30°C.

PACKAGING

Solvidur® AE0445-NS is available in IBC's, 160kg, 150kg, 125 Kg or 50 Kg drums.