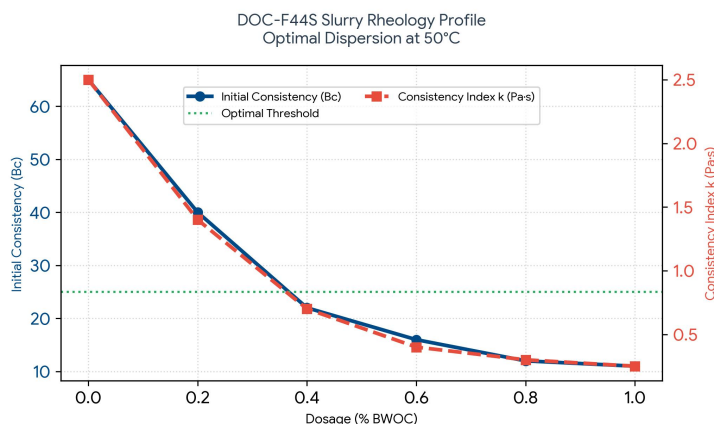


DOC-F44S Cementing Dispersant

Aldehyde Ketone Condensation Compound for Excellent Slurry Rheology

1. Performance Highlight (Rheology & Consistency)

DOC-F44S significantly reduces cement slurry consistency and improves rheological behavior by inhibiting the coalescence of cement particles. The following chart illustrates the typical relationship between product dosage, Initial Consistency (Bc), and Consistency Index (k) at 50°C:



2. Features & Benefits

- **Outstanding Dispersion:** Strongly inhibits the coalescence of cement particles with the influence of macromolecules' steric hindrance, dramatically improving slurry flowability.
- **Reduces Initial Consistency:** Effectively lowers the initial consistency to safely below 25 Bc at a low dosage, ensuring highly efficient pumping operations with reduced friction pressure.
- **Optimizes Rheological Properties:** Increases the flow behavior index ($n \geq 0.7$) and safely reduces the consistency index ($k \leq 0.8$ Pa·s), creating ideal conditions for turbulent flow displacement.
- **Zero Negative Impact:** Has absolutely no adverse side effects on slurry fluid loss, sedimentary stability, free water control, thickening time, or compressive strength development.

- **High Quality & Purity:** 100% water-soluble brown powder formulation featuring a high effective content of $\geq 70.0\%$.

3. Technical Specifications & Slurry Properties

Property Item	Technical Specification / Index
Appearance	Brown powder
Chemical Base	Aldehyde ketone condensation compound (Saf Polymer)
Bulk density (g/cm ³)	1.10 ± 0.20
Solubility (%)	100%
Effective content (%)	$\geq 70.0\%$
Recommended Field Dosage	0.2% - 1.0% (BWOC)

Slurry Performance Item	Index	Test Condition
Rheological property (n, Dimensionless)	≥ 0.7	50°C, Normal pressure
Rheological property (k, Pa·s)	≤ 0.8	50°C, Normal pressure
Initial Consistency (Bc)	< 25	50°C, 20MPa / 25min

* Base Slurry Reference Formulation: 100% Class G cement (high sulfur resistant) + 44.0% (BWOC) fresh water + 0.4% (BWOC) DOC-F44S + 0.5% (BWOC) DOC-X60L defoamer.

4. Packaging & Storage

- **Packaging:** Packaged in triad composite bags (25kg/bag) or based on customer requirements.
- **Safety & Handling:** Non-flammable and non-explosive. Avoid skin contact and inhalation of dust. Protective equipment should be worn.
- **Storage Conditions:** Store in a safe, cool, and well-ventilated environment away from direct sunlight.

To obtain the Material Safety Data Sheet (MSDS) or to learn more about laboratory application schemes, please contact us directly: QINGDAO DIMENSIONAL COPOLYMERIZATION ENERGY CO., LTD.

Website: www.dicoenergy.com | Technical Support Email: info@dicoenergy.com