

ALCO®

Non-Ionic Defoamer for PCE Admixtures



ALCO® is a clear, non-ionic defoamer developed primarily for foam and unwanted-air control in polycarboxylate ether (PCE) concrete superplasticizer formulations. It has an approximately neutral pH and is readily soluble in water and PCE-based admixture systems.

Applications

- Foam control during manufacture of PCE-based superplasticizers
- Adjustment of unwanted air in third-generation concrete admixtures
- Other water-based formulations after compatibility trials

Product Characteristics

- Clear, non-ionic liquid
- Approximately neutral pH
- High compatibility with water and PCE formulations
- No chloride ions declared in current ALPAKA information

Advantages / Benefits

- Controls micro- and macro-foam during admixture production
- Helps manage entrapped air without changing the primary PCE chemistry
- Low use level allows accurate formulation adjustment
- Can be incorporated into the production process after trial validation

Guideline for Use

Add ALCO at a point that allows complete, uniform dispersion through the PCE formulation. Establish the addition point and mixing time by laboratory and production trials. Confirm final air content, stability, viscosity and appearance before release.

Dosage

Recommended starting range: 0.01-0.10% by weight of the PCE-based superplasticizer. Start at the lower end and optimize by trial.

Compatibility

Compatible with many PCE systems; however surfactants, salts, preservation systems and process temperature can change defoaming efficiency. Verify every formulation and raw-material change.

Trial Requirements

- Measure density, viscosity, appearance and storage stability
- Check air content in the intended concrete at the proposed use level
- Confirm that required fresh and hardened properties are maintained

Effect of Overdosing

Excessive defoamer may reduce required air content, upset formulation balance or affect surface appearance and performance. Reduce dosage and repeat the full compatibility and concrete-performance assessment.

Limitations

Do not use a cloudy, separated or non-homogeneous product without technical review. The optimum dose is formulation-specific and cannot be transferred unchanged between PCE systems.

Product Information

Chemical Type	Alcohol-based defoamer blend
Ionic Character	Non-ionic
State / Appearance	Clear liquid
Solubility	Readily soluble in water at 20 deg C and in PCE systems
Packaging	20 kg plastic jerrycan
Shelf Life	At least 24 months in unopened original packaging
Storage Condition	Closed container; protect from cold, frost and direct sunlight
Density	Approximately 0.96 g/cm ³
pH	Approximately 7
Chloride Ions	None declared
Recommended Dosage	0.01-0.10% by weight of PCE superplasticizer

Storage

Store in the original closed container and protect from direct cold exposure and frost. If cloudy, viscous or frozen, allow the product to return gradually to ambient temperature and use only after complete homogenization. Consult Technical Service if normal homogeneity is not restored.

Basis of Data

Technical information in this sheet is based on ALPAKA product information and general industry references. Values described as approximate are not release specifications. Actual performance may vary with raw materials, formulation, temperature, process and site conditions. Verify critical properties on the current batch documentation.

Precautions

Obtain and follow the current product-specific SDS. Avoid ingestion and eye or skin contact. Wear protective gloves and eye protection and provide adequate ventilation. Rinse accidental contact with plenty of clean water and seek medical advice if symptoms persist.

Fire / Cleaning and Disposal

Fire classification is not established in this TDS; refer to the current SDS. Use an extinguishing medium suitable for the surrounding fire. Contain spills with a compatible inert absorbent, prevent entry to drains and dispose of residues under local regulations.

Additional Information

For current specifications, application support and trial guidance, contact ALPAKA Chemical Group:
info@alpakagroup.com | +98 933 202 3003 |
www.alpakagroup.com.

Important Notes

The information and recommendations in this Product Data Sheet are given in good faith and reflect ALPAKA's current knowledge of the product when correctly stored, handled and used under normal conditions. Materials, formulations, substrates, production methods and site conditions vary; therefore no warranty of merchantability or fitness for a particular purpose can be inferred from this document. The user is responsible for confirming suitability through representative trials and for complying with applicable laws, standards, approvals and third-party rights. The current commercial specification, batch Certificate of Analysis and product-specific Safety Data Sheet take precedence over this document. Refer to the most recent issue for the product concerned.