NB5-2628
CO-EMULSIFIER

NB5-2628

The most advanced emulsion and co-emulsion formation properties of an SMO with far greater synergy, control, and stability.

Superior Co-Emulsification with the Stability of a PIBSA

Supporting a broad range of mining and quarrying applications that require sophisticated blasting, NB5-2628 offers superior emulsion stability and control.

NB5-2628 offers an alternative to explosive emulsification processes that utilize SMO as a co-emulsifier. It offers the emulsion formation characteristics of an SMO with superior bulk and packaged emulsion stability, both with and without the incorporation of solid dopants such as ppAN.

ADVANCED CO-EMULSIFIER

- Ease of Formation - as a co-emulsifier, achieve rapid and low energy emulsification
- Highly Stable - emulsion stability significantly exceeds SMO alternatives
- Versatile - Flexible SMO replacement in most formulations
- Cost-Competitive - widely available, and easy to procure

NB5-2628 VS SMO

- Performance - similar droplet size, viscosity, and compatibility with different oxidizers
- Gassing - similar characteristics
- Sole Emulsifier - emulsion stabilities tend to exceed those with SMO
- Co-Emulsifier - combined with a primary PiBSA emulsifier, the blend is much more synergistic and stable

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Figure I: Shelf-life progression of 70:30 NB2424:SMO (left) vs. NB2424:2628 (right) after about I5 months.

Basic Shelf Test

Comparing the shelf life of a 70:30 2424 blend over an approximate I5 month time period. NB5-2628 showed a dramatic increase in stability of the emulsion over an SMO (Figure I).

Thermal Cycling Test

High secondary emulsifier-content variant samples were subjected to multiple freeze/heat cycles to study stability under varied temperature-related conditions. The test consisted of two weeks of daily transitions from a 40°C oven to a -20°C freezer.

The SMO-based variant exhibited very short life spans once subjected to freezing conditions, and upon thawing contained not only a significant number of crystals but a slight separation of oil and water layers. Alternatively, NB5-2628 remained stable in the same conditions, and showed very little crystal formation (Figure 2).

Figure 2: Thermal cycling test results of 60:40 SMO:2424 (left) vs. 2628:2424

The New Standard for Co-Emulsification

- Greater Synergy
- Greater Control
- Greater Stability

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