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RUBBER CHEMICALS
-PEPTIZERS-

AKROCHEM[®] PEPTIZER 66

PRODUCT DESCRIPTION :

Peptizer 66 is an activated 2,2'-dibenzamido diphenyldisulfide (DBDD) absorbed on a clay carrier. It can be used as processing aids/viscosity reducers for natural and synthetic rubbers.

TYPICAL PROPERTIES:

Appearance.....	grayish powder
Specific Gravity	1.83
Active DBDD.....	40%
Ash Content.....	47%
Solubility.....	partially soluble in organic solvents, practically insoluble in water

APPLICATIONS:

Peptizer 66 is an effective chemical peptizers primarily used for natural rubber. Recommended dosage levels in natural rubber range from 0.05 to 0.5 phr (as final mixing temperature increases, the lower levels should be used). Synthetic rubbers require approximately 2.0 phr. More specific dosage recommendations are included on page 2 of this data sheet.

Benefits of using Peptizer 66:

- lower viscosity/improved processing
- lower dump temperatures with subsequent mixing
- improved mold flow
- improved uniformity of extrusions and calendared sheets
- little effect on vulcanizate properties vs. mechanically masticated rubber
- acceptable under FDA regulation 21 CFR 177.2600

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APPLICATIONS (cont'd):

Peptizer 66 disperses readily in rubber and should be added at the beginning of the mixing cycle, using either internal mixers or open mills. Viscosity reduction is most effective when the rubber and peptizer are pre-masticated before adding the other ingredients. It is possible to eliminate the pre-mastication step in internal mixers, where temperatures exceed 212°F / 100°C, by adding carbon black, zinc oxide, stearic acid, and oils after the Peptizer 66 addition. It is important, however, that sulfur, antioxidants, retarders and accelerators be added at the end of the mix cycle since they will interfere with peptization.

Recommended levels of addition for natural rubber are as follows:

- * 0.05 – 0.5 phr in mixes without carbon black that dump between 266°F (130°C) and 338°F (170°C).
- * 0.20 – 0.5 phr on rubber mills without carbon black at temperatures of 158°F (70°C) to 194°F (90°C).
- * When carbon black is added during peptization, use approximately twice the level of Peptizer 66 with the processing conditions above.

Recommended level of addition in synthetic rubbers is about 2.0 phr with processing temperatures between 266°F and 302°F. However, for styrene butadiene (SBR) it is recommended not to exceed 266°F processing temperatures to prevent possible cyclization reactions.

If higher than recommended levels of Peptizer 66 is used, be sure antioxidant is present in the compound to prevent unfavorable aging of vulcanizates.

Peptizer 66 has a greenish cast and can discolor light-colored stocks (white, tan, yellows).

ADVANTAGES:

Dry liquid dispersions (DLDs) are a proven means of upgrading plant safety, efficiency, quality and raw material control.

Akrochem dry liquid dispersions eliminate the messiness of weighing liquids, as well as other potential hazards in handling liquids in the plant. The “dry” physical form is easy to handle and weigh accurately. With a dispersion, better, uniform mixing, at lower processing temperatures is possible.

CHEMICAL DISPERSIONS:

Peptizer 66 is also available as Akroform[®] PEP 66-80/EPR/P. This polymeric masterbatch contains 80% Peptizer 66 and has a specific gravity of 1.49.

Polymer bound or encapsulated dispersions are a proven means of upgrading plant safety, efficiency, quality & raw material control.