Alterin International Inc.

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ALTERIN 110™

MULTIPURPOSE ADDITIVE SYSTEM FOR PVC

Product Overview:

Alterin 110TM multifunctional additive for PVC formulations is a specially modified aluminosilicate material with a specific structure and composition. The Alterin 110 particles exhibit high surface activity, which determines their active modification function in polymeric composite materials.

Market Focus

- ➤ Alterin 110TM is especially designed to be used as Processing Aid Cycle time Reduction Agent (Increased Production Output) in a wide range of plastics applications.
- ➤ ALTERIN 110TM is an inorganic mineral acid neutralizer and effective co-stabilizer in PVC formulations
- ➤ ALTERIN 110TM imparts the mechanical properties of the PVC composite
- ➤ Alterin 110 acts as a compatibilizer and desiccant in PVC wood fiber composite. It contributes to finer cell structure in the foamed composite, eliminating voids and enhancing the physical properties

Stabilization mechanism of ALTERIN 110TM

The stabilization effect of ALTERIN 110^{TM} in PVC is due to the effective deactivation of HCL formed during the thermal degradation of the polymer.

The dehydrochlorination of the PVC chains can be stopped by using stabilizers like Alterin 110 TM that irreversibly bond HCl.

Alterin 110 TM is an environmentally friendly heavy metal free PVC co-stabilizer.

ALTERIN 110[™] Processing aid Cycle time Reduction Agent

The viscosity of polymers can be reduced by the addition of small amounts Alterin 110 (1 - 2%) at normal processing conditions thus improving the polymer flow. As a result of this the PVC composition can be processed at lower temperature.

Thus reduced cooling time and reduced cycle time and increased productivity can be achieved.

By addition of Alterin 110 additive the PVC production rate can be increased by 10% up to 25%.

Additional Product Benefits

PVC composites modified with Alterin 110 TM exhibit the following advantages:

- Increased stiffness
- ➤ Higher tensile and flexural strength
- Higher flexural and tensile modules
- Imparts high heat stability to the processed plastics.
- Imparts good weathering stability to the processed plastics
- Excellent dispersability
- ➤ Desiccant and compatibilizer in polymer wood fiber composite

Physical properties

Appearance: White off, free-flowing fine powder

Odor Odorless

Specific gravity (g/cc) 1.7 pH, 10% slurry in water 8.9

Particles size 90% below 44 microns

Water solubility Insoluble

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