



255 Fountain Street Akron, Ohio 44304-1991
330-535-2100 ♦ 800-321-2260 ♦ Fax 330-535-8947

FIRE RETARDANTS

ZINC BORATE

PRODUCT DESCRIPTION:

Zinc Borate is an important additive to help achieve excellent flame resistance in rubber articles. It is a free-flowing powder that disperses easily. Zinc borate can be added to any flame retardant system and will improve flame test results with minimal effect on compound properties. Zinc borate will form a glassy char at high temperatures that prevents flame propagation. It also releases water of hydration similar to ATH. Zinc borate is a synergist with antimony oxide and halogenated flame-retardants as well as ATH. The combined ingredients will have better flame resistance than the separate materials would have. Zinc borate helps in compounding halogen-free, flame-resistant rubber that generates minimum acidic smoke.

TYPICAL PROPERTIES:

Appearance..... free-flowing white powder
Specific Gravity @ 25°C 2.83

APPLICATION:

Zinc borate works in concert with virtually all other flame retarders. The synergy with antimony oxide allows 1/2 as much antimony oxide to be used and obtain comparable results. As it becomes more apparent that smoke kills as many people as an actual fire, low-smoke flame retardance is becoming critical. Zinc borate is an important part of low-smoke formulas. 5-10 phr is a recommended starting point. Other parts of a low smoke formula include ATH and/or magnesium hydroxide as water-donating fillers and a phosphorus source to aid char formation. Akrochem offers all of these fire retardant ingredients.

Zinc borate is also a potent anti-fungal and anti-bacterial additive. 2% zinc borate in a compound can provide a distinct decrease in mold growth.

PACKAGING:

55.1 pound bag

gb 11/07
zinc borate

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