

**LORIENT**

North America

IP12000/IP14000

"Palusol®"

## Spec Sheet

Last revised: January, 2003

### Material Composition:

Palusol® intumescent material consists of a solid sheet of hydrated sodium silicate compound, reinforced with glass fibers and coated on both sides with a barrier film of durable epoxy resin.

### Colors:

Palusol® is available only in its natural white color.

### Size:

Palusol® is available in full-sheet dimensions of 43" x 83", or cut-to-size pieces, to individual order. It is available in either 2mm or 4mm thickness. The material is rigid and all items are shipped flat, not rolled or coiled.

### Temperature Exposure:

Palusol® will remain stable over a wide temperature range.

#### Cold:

Exposure to extreme cold, to -30 degrees F, will not detrimentally affect the material, except that it will become more brittle.

#### Hot:

Exposure to temperatures up to 180 degrees F will not detrimentally affect the material, except that it will become soft and pliable. The material is designed to expand vigorously (intumesce) under continuous exposure to temperatures above 220 degrees F.

### Chemical Exposure:

The epoxy coating on Palusol® material is resistant to all but the most aggressive of chemicals. It is unaffected by common acids, alkalis, salts and organic solvents. Where the coating has been damaged or cut through, care must be taken to reinstate the damaged area, particularly if it will be exposed to humid or damp environments.

### Expansion Characteristics:

Products containing intumescent materials will expand at a variety of rates and temperatures, depending on their chemical composition and other factors. Environmental conditions, the placement of the product and the energy of the heat source may influence the speed or magnitude of the intumescent reaction. The following information serves as a guideline.

#### Temperature for Expansion:

Approximately 220 degrees F, depending on conditions

#### Rate of Expansion:

Between 5:1 and 12:1, based on original thickness of either 2mm or 4mm, and depending on conditions

### Moisture Resistance:

Provided the protective epoxy coating is intact, Palusol® exhibits good resistance to humidity but will require more specialized treatment if continuously exposed to condensation or running water.

### Special Handling Requirements:

Palusol® should be stored flat, preferably in a cool place, but will tolerate temperatures up to 180 degrees F. Extensive tests show that no deterioration in performance takes place even after 25 years storage.