Magna COATINGS

*Magna Coatings is a proud member of the **Quantum Group** of companies.*

Other SafeCoat® Applications

OEM and Composite Materials Manufacturing

Manufacturers of sheet goods without flame spread ratings can upgrade their products at the factory. This upgrade will enable them to offer a value-added product to the consumer with a factory-controlled application.

One of the larger manufacturers of gypsum board is experimenting with the use of thin film intumescents as a surface treatment on their Fire Rated sheeting material. Presently, several sheets of gypsum are required in shaft wall applications in order to achieve a two to three hour rating. The application of a fire retardant upgrades the fire resistance ratings on 5/8" gypsum board sufficiently enough so that a single coating would improve the resistance to the point where one or more sheets could be eliminated.

This type of application could lead to improved loading and spatial considerations in the design stage of high

Voluntary Upgrades - Consumer Products

Several paint manufacturers have been producing intumescent paints for use in building code applications for many years. Unfortunately, due to the specialized nature of the finish, the cost of the additives and the limited demand, these paints have been far too costly to offer for sale through the conventional retail channels.

Market research has shown that there is sufficient interest and demand in the Home Improvement, Do-It-Yourself Retail Lumber market for such a product. Applications could include:

- Cottages and boat houses
- Chalets and resorts
- Attics, storage areas and furnace rooms
- Decorative substitutes for conventional paints
- Barns, stables, and chicken coops

Where to Apply SafeCoat Fire Retardant Coatings

Recent uses for intumescent coatings have been in the protection of timber beams and concrete columns in the construction industry, as well as bulkheads in ships and aircraft. One of the more innovative applications for intumescent coatings is as a static seal or strip, applied or incorporated into the manufacture of items at risk during a fire. Items such as windows, doors, pipe work passing through a fire-check wall would qualify as risk areas in need of a fire retardant. Even meshes, heavily coated and fixed in a vent shaft, will close up and prevent the passage of smoke or gases at the relatively low temperature of 250^0 Celsius.

With the **SafeCoat System, Magna Coatings** developed a highly effective fire retardant (intumescent) coating geared specifically to sheathing and rough stud construction applications. The applications of **SafeCoat Fire Retardant Coatings** are diverse. For instance, this product has recently been used to seal small openings in fire penetrations with the approval of all the authorities. The durability, versatility and low cost of **SafeCoat** products are attractive assets that every user can appreciate. **Magna** offers everyone - designer, contractor, and manufacturer - a product that is a high formulation of solids - durable, effective, code approved, easily applied - and able to be mixed in volume at relatively low costs.

The risk management aspects of using intumescent coatings are varied and should pay off through both a financial and from a life safety perspective. In this manner, extreme fire losses can be controlled and the potential of insurance premium savings may be realized.

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New Home Construction

A major fire in Markham, Ontario, destroyed 105 new homes, with losses exceeding 10.5 million dollars (on a premium of less than $400,000). After that, many new home builders are considering applying a fire retardant product to much of the rough stud and sheeting materials used in construction.

The challenge in this market and application is the return on investment. Builders are accustomed to working with very fine margins on labor and materials.

The application of such finishes could add from $600.00 to $2500.00 to the net cost of an average sized home (depending on extent of use, type of roofing system used, etc.).

Industry experts predict that further changes to the building code, and/or pressure from the insurance industry, will eventually mandate the use of less flammable materials in new home construction.

Fire Protection for Foamed Plastic Insulation in Steel Buildings

In mid 1992, Spruceland Millwork (Spruce Grove, AB) built a new steel building to replace the millwork shop and warehouse that had been lost in a fire earlier that year. The fire was initially started by some equipment, and later spread to the interior plywood lining of the building. Once the fire broke through the wall cavity, the fire fighters could not put it out; the plywood burned with the call cavity.

The new building (10,800 square feet) was designed much like the old, only this time it was lined with ½ inch OSB to protect the insulation from damage by workers moving materials around in the warehouse. In order to prevent another fire, Spruceland specified that the OSB lining be coated front and back with **Magna's SafeCoat Fire Retardant Coating.** This application gave them a flame spread equal to pressure-treated Douglas Fir Plywood (FSI - 25) at a much lower cost. Spruceland used 900 sheets of coated OSB to line the interior, which resulted in a bright, well-lit environment, resistant to fire and abrasion damage from men and machines.

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