

## Spray Polyurethane Foam Insulation

As energy prices skyrocket, so does the demand for insulation and energy saving techniques and products. Nothing beats spray polyurethane foam, but you need a thermal barrier that is easy to apply, economical, and reliable.

You need Contego.

Contego applies with the spray equipment you already have, is completely non-toxic and can be top coated with acrylic enamel for special applications that require wash-down like coolers, produce facilities, slaughterhouses and more.

Fireproof Paint over the Foam

## Polyurethane Foam Insulation Test Data

- ← **AIT Labs"Fire Resistance Test"**
- ← **UBC - 26.3"Room Fire Test Standard"**
- ← **ASTM D3359"Standard Methods For**
- Measuring Adhesion by Tape Test"**
- ← **ASTM E-84.98(UL-723, ANSI A-2.5, NFPA 255 &**
- UBC 8-1 & 42-1)**
- ← **"Flame Spread and Smoke Production on**
- Polyurethane Foam Insulation"**
- ←
- ← **BSS 7239-88"Test Method for Toxic Gas**
- Generation by Materials On Combustion"**
- ← **ASTM D4017"Volatile Organic Compound**
- Content"**
- ← **Architectural Specification for Polyurethane**
- Foam Insulation**
- ← **Sample QC Reports (Other than UL Listing)**
- ← **MSDS**
- ← **Engineering Judgments**

There is no special training necessary to apply Contego's PFB thin film intumescent latex. Forget special preparation costs too! As long as the substrate is clean, dry, and oil-free, Contego's advanced polymers will bond.

#### Product Detail

- ï Familiar latex base - no acidic smell.
- ï Super fine, aesthetic appearance, no more thick "oatmeal" look.
- ï Shelf Life: Indefinite (protect from freezing).
- ï Contego can be used on the exterior or interior.
- ï Although designed for interior use, its wearability allows it to be used on the exterior of structures providing a topcoat is applied.
- ï White color (may be tinted to pastel shades).
- ï Cleans up with soap and water.

#### Application Detail

- ï Application rate per coat is 130 sq ft per gallon (7 mil. dry / 14 mil. wet).
- ï Two - three coats recommended for most applications.
- ï Most applications require no special preparation.
- ï Primer recommended for old wood.
- ï Shellac based primer recommended for bio-based foam.
- ï Recommended spray application: positive displacement piston sprayer.
- ï Recommended application pressure = 2,400 psi with a 25 tip.
- ï Allow each coat to completely dry and allow 24 hours for full cure.
- ï Top coat with acrylic enamel to add color or sheen.
- ï Top coating also increases fire resistance by 25-32%.

#### Specific Application for Steel

- ï Steel requires 6 to 10 coats depending on steel type and rating.
- ï Steel should be primed with commercial quality red oxide primer.

#### Summary

**THIS IS A QUICK OVERVIEW. ALWAYS FOLLOW THE ARCHITECTURAL SPECIFICATION FOR YOUR SPECIFIC APPLICATION**

## Contego Thin Film Intumescent Latex.

← How long have fire retardant paints been around? In the early 1950's, flame retardants first appeared offering a new level of protection from fires. While they were not able to arrest fires, they were effective in slowing the development giving additional time to evacuate and more time to react to a fire. These first generation coatings were expensive, difficult to apply and foul-smelling. Virtually all early flame retardants were formaldehyde-based, extremely toxic and carcinogenic.

←

← What is an "intumescent" fire retardant paint? Work began in the mid-1980's to perfect a new genre of coatings called intumescent reactants. The term "intumescent reactant" (IR) generally defines a type of coating that expands when exposed to high temperatures or direct flame, forming a "char barrier" several inches thick. This results in an effective and durable barrier that either cuts off the fuel source a fire needs to develop or creates an insulating blanket to retard heat rise in structural steel.

← If Intumescents have been available for 20 years, why am I just now hearing about them? Until recently, most intumescents met with only limited success because they had obvious deficiencies and limitations. Traditionally, intumescents have been thick, gummy, foul smelling, toxic, carcinogenic, ugly, and expensive. They have required exotic preparations like two part epoxy primers and couldn't be top coated - or you had to buy the manufacturers specially formulated top coat. They had limited shelf life and some had to be periodically reapplied, which, of course, is impossible. For example, some products that claimed to be non-toxic and non-carcinogenic still used formaldehyde and other toxic substances. Other products did not bond well to surfaces and other coatings, like paint, did not bond well to them. The defects in the formulae caused them to produce a fragile char barrier that was easily compromised. Once compromised, fire could undermine the rest of the intumescent layer rendering it useless. That was then – Contego is now.

←

← Where have intumescents traditionally been used? In spite of their shortcomings, intumescents have played a valuable role in high fire risk

situations such as oil refineries, offshore oilrigs, tankers, and large chemical manufacturing facilities. Due to their shortcomings, most previous intumescent coatings had to be applied with a trowel or specialty sprayer requiring a highly-trained operator. In addition, they had to be applied in a thick layer (150 to 200 mils) to achieve acceptable protection. Today, with dramatic improvements in the state of the art, intumescent coatings are in high demand for virtually any substrate in any design.

←

←

What's the difference between Contego and other intumescent coatings?The differences are many and they are important. With just under ten years on the market, Contego has been around long enough to be a proven product, but young enough to take advantage of significant advances in polymer technology that simply didn't exist when other products were formulated. Contego applies like regular paint. No special tools are required. You can use a brush, roller, or standard sprayer. It smells, feels, and applies like high-quality latex paint. It has a broad range of applications since the polymer base allows it to bond tightly to many different substrates. It is non-carcinogenic and non-dermatitic. It's completely safe for use around children and pets. It has a pleasant scent, with no solvents or VOC's. For most combustible substrates, two coats (14 to 20 mils dry) give as much protection as 150 to 200 mils of the old fashion intumescent. Last but not least it's very economical to use.

←

What kind of substrates can Contego be used on?Contego has been proven effective on a wide array of substrates such as structural steel, wood (both dimensional lumber and manufactured woods like OSB, MDF, Plywood, etc), and drywall, spray polyurethane foam, aluminum, PVC pipe and more. It should not be applied on Styrofoam or EPS since that material is liquid fuel at less than 200 degrees and Contego, like ALL intumescent coatings, reacts at about 360 degrees.

←

←

Why does steel need to be protected from fire?The application for structural steel and architectural metals, such as the skeleton of a building or the steel trusses in a roofing system, is extremely important. Although steel obviously does not burn when exposed to fire it loses its structural integrity and collapses once the core temperature reaches prescribed limits, causing the structure to collapse as in the World Trade Center or the McCormick Place fire in 1969. Contego products reflect heat, reducing

- the risk of structural collapse.
- ←           What colors are available?Contego comes in white only, but can be tinted or top coated. It is, however, a very attractive color and can be used as the finish for ceilings.
  
  - ←           What if I want to add a tint to the primer?Due to the high solids content of Contego, it does not react to color tinting like normal latex. The most you can add is 10% by volume. At most, you will be able to get a light pastel shade when tinting. However, since it can be top coated, there's no reason to tint it unless you are using tint to help identify layers between coats. See Questions 10 and 11.
  
  - ←           Do I need to use a top coat with Contego?When the primer is used on any surface that is exposed to the elements or high levels of humidity or harsh vapors such as chlorine vapor, you should apply a protective top coat of enamel or acrylic. For more clarification see the answer to Question 11 below.
  
  - ←           What kind of top coat is recommended?Any high-quality 100% acrylic latex, oil base, enamel, or latex finish coat will work. While top coating is optional, it is always a good idea - and absolutely required for exterior applications or interior applications that will be exposed to high levels of humidity, water spray or chemical vapors like chlorine. To add color or sheen to Contego use virtually any alkyd or enamel paint as soon as the intumescent coating is completely dry. If using a roller, DO NOT RE ROLL OR TOUCH UP until initial color coat is dry. Failure to wait for first color coat application of acrylic/latex to dry may result in the color coat smearing or "back-rolling" off on the roller. Once first color coat of latex/acrylic is dry, apply a second coat if needed. Top coating does not reduce intumescent capability.
  
  - ←
  - ←           How long does the primer continue to protect?It will last as long as the primer adheres to the substrate and is not damaged or penetrated. Please see next question.
  
  - ←           Have your products been tested and approved?Please see our HYPERLINK "[http://www.contegointernational.com/products\\_tests.cfm](http://www.contegointernational.com/products_tests.cfm)" Test Page Contego is the only manufacturer that uses dual redundant

quality control testing using UL, MAS and MAGI. Each runs independent spectrofluoroscopic analysis of our "Chemical signature" to insure that each and every batch is identical. It also shows that our shelf life has no identifiable limits at this point.

← Is the Contego product UL tested? While we include UL-263 and UL-CS101 as two of the nine different standards to which we test every piece of steel (as noted in the prologue of our tests), we do not use Underwriters' Laboratories as the primary laboratory for testing purposes because: UL only provides certification for their own tests and will not include other standards such as ASTM, ANSI, UBC, NFPA, CEN, ISO and BSS, all of which we need and use. UL is not the basis for any building code (although UL offers quality testing that is readily acceptable, it is not the foundation for building code - ASTM is). Contego can be found at UL.com as a certified, tested, and approved product (3JVU) since we use UL as part of a dual redundant system for quality assurance and warranty of performance, something no other intumescent manufacturer offers. It is critical, however, that testing be performed to code-based standards and that the laboratories be established, accredited, audited and certified. Our partner labs are the most respected and recognized in the world and enjoy international acceptance.

←

← Who uses Contego? Some of the companies and institutions that use Contego include Federal Express, Boeing, General Dynamics, Department of Defense, almost every leading hotel chain, Sherwin Williams, resorts, theme parks, casinos, hospitals, churches, schools, universities, correctional facilities, major airports, municipalities, assisted living centers and nursing homes, telephone companies, fireproofing specialists, food processing centers, distribution warehouses, banks, restaurants, leading architects, general contractors and paint contractors. 72% of our business is repeat purchasing from these industry leaders. More satisfied users are listed under CUSTOMERS on our website

← Does Contego protect against fires caused by accelerants such as gas, oil, diesel fuel, etc.? The results of fires caused by petroleum accelerants are usually the same as with non-accelerated fires. The fire just burns more dangerously and furiously until the accelerant burns off. But in the end, our products produce the same results.

←

←

←

Do you guarantee this won't burn? Everything will eventually burn – even granite become lava given enough heat and time. Contego is designed to provide the best possible margin of safety by creating a tough char barrier between fire and the fuel it needs to keep going or, in the case of structural steel, it effectively insulates the substrate to delay any increase in the core temperature which eventually leads to a critical loss of structural integrity.

←

Is this in any way harmful, allergenic, carcinogenic, or toxic? No. Contego has no harmful side effects and releases no toxins even when exposed to fire. This is one of the advantages of our products compared to fire retardants of the past. Contego has no solvents and no VOC's.

←

←

If I repaint a room do I have to reapply the primer? No. Surprisingly, a top coat of paint actually makes the char barrier tougher and more fire resistant by 25% to 32% according to laboratory tests.

←

←

Will the Contego product freeze? It certainly can, and that could ruin the product, so it should be handled accordingly.

←

Will, or do, any insurance companies give a discount on premiums if this is applied to a building? Several major underwriters are considering offering reduced rates to owners of buildings protected with Contego Thin Film Intumescent Latex. We will post this on the website as soon as we have been informed.

←

←

Can an existing surface be treated with this product? Yes. It's important, however, that the surface being treated is completely clean, dry, and free from dirt, debris or oil residue.

←

Do you need a license or permit to apply this product? No. Again, Contego behaves just like any high quality latex paint.

←

Do I need any special equipment to apply this product? No. Any airless spray gun with 2,400 psi and a .25 tip will do. You can also use a brush, roller or mitt.

← Are there any critical storage issues? Although the Contego product contains no toxins, carcinogens or VOC's, dispose of any unused portion in an environmentally safe way according to local codes for paint disposal. Do not apply when temperature is below 0° Celsius (32° F). Do not allow contents to freeze. Do not store the product in temperatures above 120 degrees. Remember that product sitting in the sun will get hotter than the ambient temperature.

←

← How is the product packaged? Standard container is a 5 gallon (18.9L) metal pail. Diameter is 13 inches (33cm); Height 14 inches (35.5cm); Weight 58.5 Lbs (26.5 K); Empty pail weighs 3 lbs (1.5k): Net weight per gallon 11.1 Lbs (5.03k). Product is also available in 55 gallon steel drums.

←

Do you ship overseas? Yes. All prices are ex-factory with CIF quotes on request. The Uniform Customs Code UCC is 3209.10.000

Distributor of Contego in USA  
[http://bluejaysales.com/viewpage.php?page\\_id=9](http://bluejaysales.com/viewpage.php?page_id=9)

Thank you,

Larry Adreme  
[Bluejay Sales.com](http://BluejaySales.com)  
(800) 920-7650