



FIRE Retardants Inc.TM

The Decision You Make May Save A Life!

123 Columbia Court North • Suite 201 • Chaska, MN 55318

952-448-7377 • FAX: 952-448-2613

Fire Retardant "HOT LINE" 1-800-913-9385

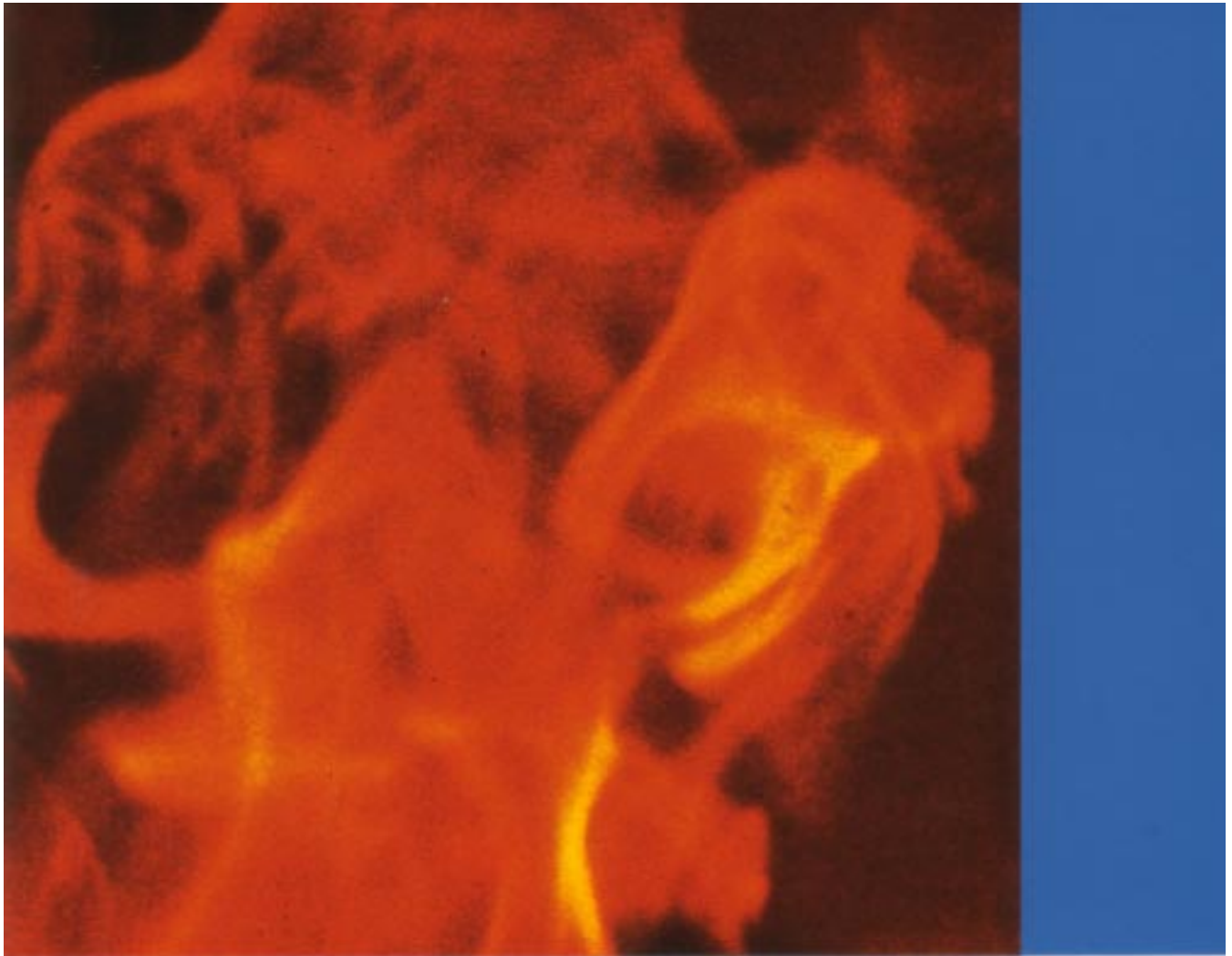
e-mail: info@fireretardantsinc.com

Visit Our Web Site at www.fireretardantsinc.com

3M

InteramTM

E-Mat Flexible Wrap for Industrial Fire Protection



DON'T LEAVE ELECTRIC AND CONTROL SYSTEMS VULNERABLE.

When a fire occurs, the electrical systems that control critical areas such as control rooms, ventilation, lighting, alarms and elevators must remain operational in order to facilitate a safe and orderly plant shutdown and evacuation. With 3M™ Interam™ E-Mat (Endothermic Mat), cable raceways, conduit, equipment shrouds and other electrical control systems can be protected for up to three hours in intense heat.

Interam E-Mat is significantly more flexible and conformable than traditional rigid panel systems. So it's easier to install on the complex shapes common in electrical systems. Installation is quick and clean, and can be accomplished by a trained crew.

Fire Resistance for Steel Cable Tray		
Time for cable temps. to reach 250°F. + ambient (avg.)		
E-SA-4 Layers	Fire Rating	
	ASTM E-119 (UL 1724)	ASTM E-1529 ¹ (UL 1709)
1		13 minutes
2	1+ hour ¹	30 minutes
3		55 minutes
4		86 minutes
5	3+ hours ²	121 minutes

1. 6' x 18" steel cable tray - TCT #414187-331
 2. 4' x 12" steel cable tray - TCT #414186-331
 3. 4' x 12" steel cable tray - Omega Panel Labs. #006-9973

Contact your local 3M Sales Representative for additional information on other steel cable tray ratings. Test reports available on request. Additional Testing Results available include: Jet fire test (SINTEF), Explosion, Acoustical.



Aluminum-faced 3M™ Interam™ E-Mat Flexible Wrap provides electrical cable frays and conduits with full envelope protection against fire damage or entry of water during an accidental sprinkler discharge.

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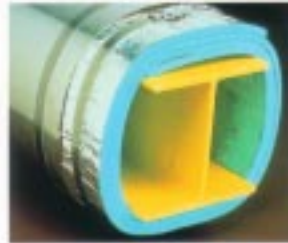


THE SAFE, SIMPLE WAY TO PROTECT STRUCTURAL STEEL



Leaving structural steel exposed to fire can lead to irreparable damage of a facility's superstructure, thus compromising continuity of operations. 3M Interam E-Mat Flexible Wrap provides an easy solution.

Traditionally, structural steel has been protected with messy, sprayed on materials or encased in concrete. An Interam Endothermic System can reduce the amount of time to install structural steel fireproofing from 25-40 percent. It doesn't spill, crack or chip. It won't corrode steel or other metals. Whether used for retrofit or new construction, the system's flexibility allows it to be installed easily and maintained with virtually no disruption to surrounding areas.



Multiple layers 3M™ Interam™ E-Mat Flexible Wrap allow you to tailor the exact amount of fire protection you desire.

Fire Resistance for Steel Beams and Columns					
Time for steel to reach the indicated temperatures					
E-5A-3' Layer(s)	E-5A-4' Layer(s)	ASTM E-119 / UL 263		ASTM E-1529 / UL 1709	
		(400°C.)	(1000°F.)	(400°C.)	(1000°F.)
1		67 minutes	87 minutes		
2		101 minutes	129 minutes	77 minutes	100 minutes
3		150 minutes	184 minutes	123 minutes	154 minutes
	1			75 minutes	102 minutes
	2			108 minutes	138 minutes
	3			168 minutes	211 minutes
	4			241 minutes	314 minutes

1. - W10x48 Steel Column - UL File R10125-4, -5, Project 85NK23001
 2. - W10x100 or W10x48 Steel Columns - Onuga Fire Labs #9006-90944
 Results may vary depending upon beam or column size.

DNV Certificate No. 190U-96-007
 Contact 3M for additional information

Contact your local 3M Sales Representative for additional information on other beam and column ratings. Test reports available on request. Additional Testing Results available include: Jet Fire Test (SINTEF), Explosion, Acoustical.

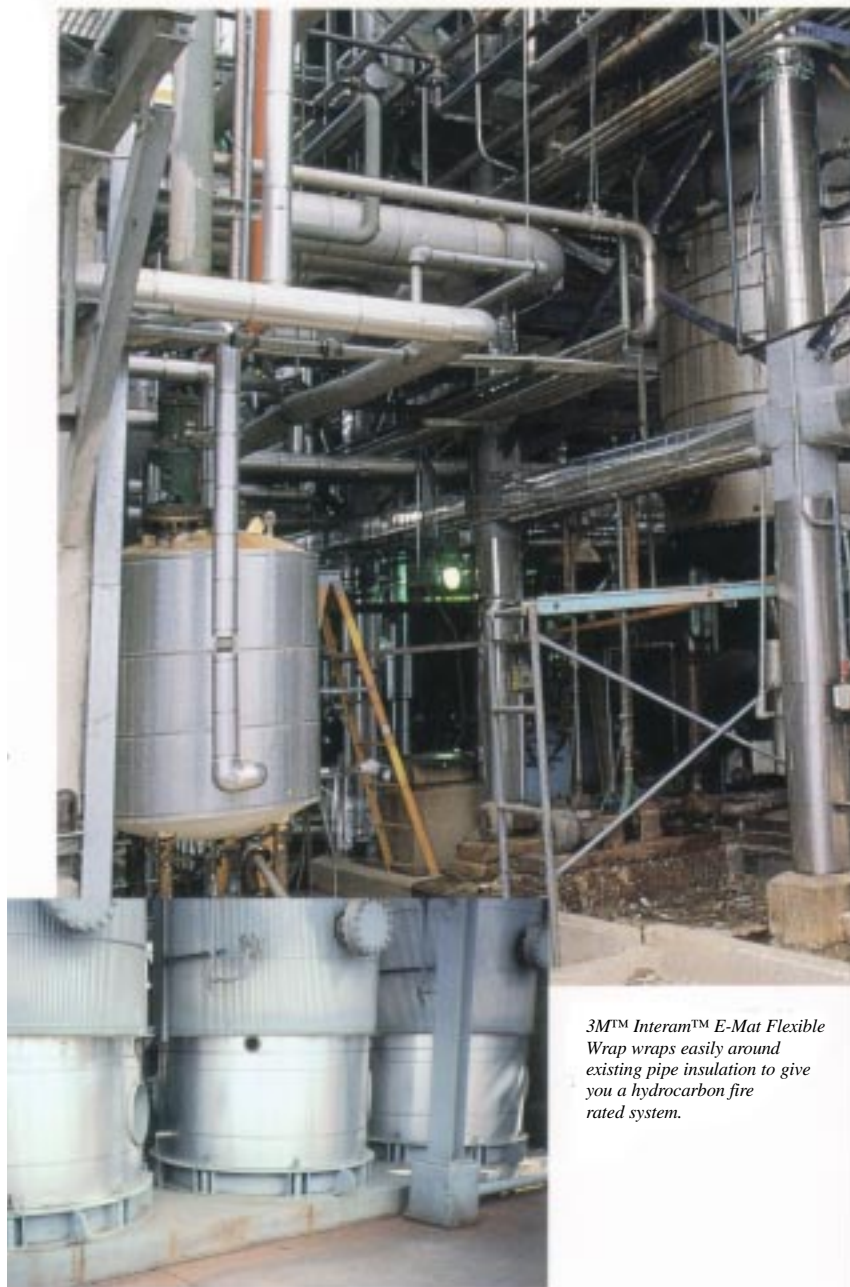


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FLEXIBLE FIRE PROTECTION FOR PIPELINES

When you've got a fire on your hands, the last thing you want to do is feed it fuel through a ruptured pipeline. A great way to help protect pipelines from ruptures caused by fire is to use 3M™ Interam™ E-Mat Flexible Wrap.

Available in various thicknesses, Interam E-Mat can be easily applied to insulated steam lines and pipelines containing combustible or dangerous liquids and gases. The flexible material provides an envelope of endothermic protection surrounding the entire length of pipe. Interam E-Mat Flexible Wrap can also be easily removed in order to inspect lines for corrosion.



3M™ Interam™ E-Mat Flexible Wrap wraps easily around existing pipe insulation to give you a hydrocarbon fire rated system.

Tubular Structural Steel Fire Protected with 3M Interam Mat and Foamglass™ Fire Tested to ASTM E-1529 Hydrocarbon Exposure					
.4" E-Mat Layers	Foamglass thickness	Time in minutes			
		(to 200°C)	(to 400°C)	(to 500°C)	(to 600°C)
1	38 mm	53	84	102	126
1	51 mm	62	95	114	137
2	51 mm	96	145	172	205

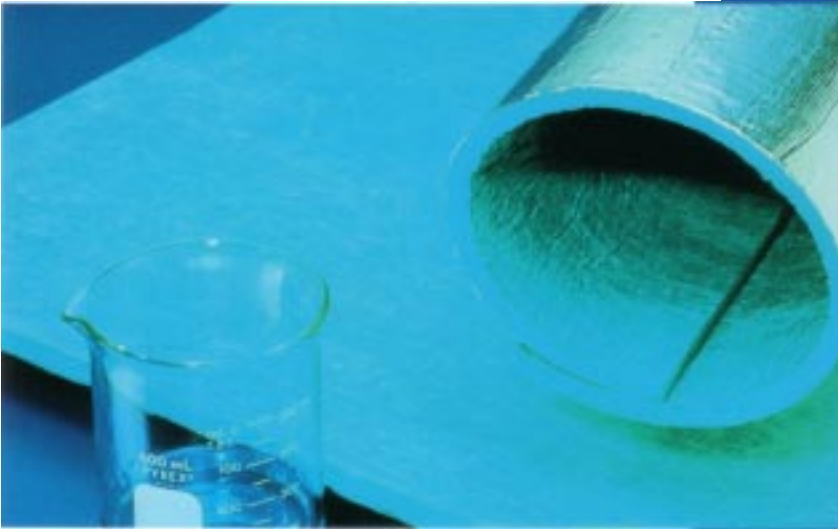
Tested in accordance with ASTM E-1529 (UL 1709)
For a typical 10" Dia. Pipe
Based on Omega Proj. no. 9006-99430
Additional Testing Results available include: Jet Fire Test (SINTEF), Explosion, Acoustical.
Foamglass is a registered trademark of Pittsburgh Corning.



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IT'S LIKE WRAPPING CRITICAL AREAS IN A WET BLANKET

During the first crucial minutes of a fire, it's imperative that critical equipment and controls remain protected and operational. That's why 3M™ Interam™ E-Mat Flexible Wrap Systems are such a good choice.



When Exposed to high temperatures, 3M™ Interam™ E-Mat Flexible Wrap releases chemically bound water, cooling the outer surface of the wrap materials and significantly retarding heat transfer.

Unlike traditional fire proofing products, Interam E-Mat Flexible Endothermic Wrap offers more than thermal insulation. These advanced endothermic materials contain chemically bound water. In the event of fire, they prevent heat penetration via a chemical reaction which absorbs heat energy. And because Interam E-Mat Flexible Wrap provides flexible, full envelope protection for electrical cabling, structural steel and pipelines, you can be assured of protection when and where it's needed most.

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In addition to 3M Interam' E-Mat Systems, there is a complete line of 3M Fire Protection Products to help prevent fire, smoke, toxic fumes and moisture from passing through penetrations in fire-rated walls and floors. For more information on these easy-to-use products, call your authorized 3M distributor or contact 3M at 888-650-3497.



M Bristol, PA Registered to ISO 9002
Certificate no. A1147

3M Fire Protection Products are classified by Underwriters Laboratories, Inc. (UL 479), UL Canada, Warnock Hersey and BCJ (Japan). Code Approved ICBO, BOCAI and SSBCCI (N.E.R. 243). Tested Worldwide to ASTM E-814, ASTM E-1 19, NFPA, 101 Life Safety Code. AS 1530.4, BS 476. DIN 4102, ISO 834 and JISA 1304. 3M Fire Protection Products are asbestos free and contain no PCBs.

Important Notice to Purchaser: LIMITATION OF REMEDIES AND LIABILITY: If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OR REPAIR OR REPLACE THE THE DEFECTIVE 3M PRODUCT. 3M SHALL NOT OTHERWISE BE LIABLE FOR LOSS OR DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, LOSS OR PROFITS, INVESTMENT, GOODWILL OR BUSINESS OPPORTUNITY), REGARDLESS OF THE LEGAL THEORY ASSERTED, INCLUDING NEGLIGENCE, CONTRACT, WARRANTY, OR STRICT LIABILITY.

3M

3M Specialty Materials



Recycle paper
40% Pre-consumer waste paper
10% Post-consumer waste paper
Issued: 10/99

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