Neocoat Intumescent - W

PRODUCT DESCRIPTION :

Neocoat intumescent - W is a water base fire retard coating . It 's dries quickly . Upon exposure to fire or excessive heat, the coating puffs up and forms a thick, dense, cellularform to have required fire protection on on structural stell.

RECOMMENDED USE :

Use for fireproofing , structural steel supports for equipment , pipe racks and tower skirts should require mechanical reinforcement , metal lath , hardware cloth , etc .

PHYSICAL DATA :

Colour	White	
Volume Solid (%)	60± 2	(ASTM D2697 Modified)
Specific gravity	1.25-1.30	
Gloss	Flat	
Surface	Steel	
Flim thickness recommended	wet 1000 microns	
	dry 500 microns	
Theoretical coverage	0.7- 0.9 sq. m / kg @ dry 500 microns	

APPLICATION DATA :

Application method	Brush , Roller , Spray , Airless Spray
Thinner/Cleaner	Water

SURFACE P Surface is clean and dry . All loose , and flaking paint must be removed.

STORAGE AND HANDLING :

Storage	The product must be store in well ventilated place protected from high temperature. Container must be kept tightly closed .
Handing	Handle with care . Stir well be for use .
Packing	1 US gal. , 5 US gal.

HEALTH AND SAFETY :

Avoid contact with skin and eyes wear . Wear suitable protective clothing such as overalls during painting.
Avoid skin contact . Spillage on skin should immediately be remove with soap and water.
Eyes should be flushed with water and medical attention sought immediately.

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CHULALONGKORN UNIVERSITY
FIRE SAFETY RESEARCH CENTER

TYPE OF TEST : DETERMINATION OF FIRE RESISTANCE OF PROTECTION FOR STRUCTURAL STEEL SECTIONS

TEST SPECIMEN : **NEOCOAT INTUMESCENT - W**
The specimens consist of four structural steel sections H 300x300x10x15 mm with the Hp/A value shown in the table below. The intumescent coating NEOCOAT INTUMESCENT - W was applied to the specimens with varying coating thickness of 1072, 2048, 3110 and 4040 μm, respectively, as shown in Appendix C. The details of the fire protection coating are shown in Appendix E. The length of the specimens was approximately 1.00 m. The fire protection material was applied to the outside surface of the specimens. The fire protection of the specimens was provided and installed by the client.

CLIENT : **UNIQUE PRODUCTS (THAILAND) Co.,Ltd.**

DATE OF TEST : December 25, 2006

TEST MACHINE : Medium-scale horizontal furnace (Fire Tester II) at the Fire Safety Research Center, Department of Civil Engineering, Chulalongkorn University. The furnace is capable of producing a standard temperature-time relationship according to several fire resistance standards including ASTM E119-05a.

TEST METHOD : The testing procedures follow ASTM E119-05a Standard Test Methods for Fire Tests of Building Construction and Materials: Alternative Test of Protection for Structural Steel Columns. The specimens were exposed to fire on the outside surface. Failure is deemed to occur when the maximum temperature at any point on the specimen exceeds 649 ° C or the average temperature of the specimen at any section exceeds 538 ° C.

TEST RESULTS : The specimens described above have the fire resistance of fire protection coating for the structural steel sections as shown in the following table. The details of the test results and photographs are shown in Appendix B and Appendix D.

(The test results are good only for the specimens tested.)

Specimen	Sections	Average Thickness (μm)	Hp/A (m^{-1})	Fire Resistance (hr:min)	Remarks
1	H 300x300x10x15 mm	1072	149	0:39	Failure occurred when the average temperature of the specimen exceeded 538 ° C.
2	H 300x300x10x15 mm	2048	149	0:49	Failure occurred when the average temperature of the specimen exceeded 538 ° C.
3	H 300x300x10x15 mm	3110	149	0:48	Failure occurred when the maximum temperature of the specimen exceeded 649 ° C.
4	H 300x300x10x15 mm	4040	149	0:51	Failure occurred when the maximum temperature of the specimen exceeded 649 ° C.

Date: May 21, 2007

Tested by: .....
(Assistant Prof. Dr. Thanyawat Pothisiri)

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(Assistant Prof. Dr. Chatpan Chintanapakdee)
On Behalf of Head of Civil Engineering Department