



DEPARTMENT OF BUILDINGS

EXECUTIVE OFFICES
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Mr. Edward Taylor
Mu Chem, Inc.
2200 Cassens Dr.
St Louis (Missouri) 63026 Date: 5/25/03

Dear Applicant:

Enclosed is a final official signed copy of MEA acceptance of your product(s).
MEA 64-01-M Vol. II which you may use as proof of your product(s) acceptance in
New York City.

This document together with proper labeling and installation in accordance with New
York City Building Code will enable the inspector to know that the product(s) installed is (are)
legal.

All shipments and deliveries of accepted materials to the job site are required to be
labeled or tagged in accordance with the format below:

Accepted For Use
City of New York
Department of Buildings
MEA

Company Name

Very truly yours,
Sun Derkhidan
Sun Derkhidan
Assistant Mechanical Engineer
Materials and Equipment Acceptance Division

**CITY OF NEW YORK
DEPARTMENT OF BUILDINGS**

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use in accordance with the Report of Materials and Equipment Acceptance (MEA) Division.

Patricia J. Lancaster, A.I.A., Commissioner

MEA 64-01-M Vol. II

Report of Material and Equipment Acceptance Division

Manufacturer - Nu-Chem, Inc., 2200 Cassans Drive, St. Louis, Montana 63026.

Trade Name - Fire-Sorb 1001, Thermo-Lag 3000

Product - Fire Resistive coating.

Pertinent Code Section(s) - 27-323, 27-324.

Prescribed Test(s) - RS 5-2 (ASTM E119, ASTM E84.

Laboratory - Underwriters Laboratories Inc., Omega Point Laboratories.

Test Report(s) - UL Report R16350 dated September 16, 1999, File R6802 dated May 21, 1999; File R16350 dated September 16, 1999. Omega Point Report No. 15521-103324, 103726, 102866, 103051, 100753, and 15521-103403, 103406.

Description

THERMO-LAG 3000 Subliming Material - A Two Component Epoxy Based Fire Resistive Material For Application To Materials Of Construction

THERMO-LAG 3000 consists essentially of a polymeric binder system, subliming compounds, film forming agents, catalysts, and additives to control rheology, surface characteristics, cohesive strength, adhesion, stability, and other characteristics.

THERMO-LAG 3000 is applied to primed structural elements such as beams and columns to reduce, limit or restrict heat transfer to the substrate. The thermal mechanism of sublimation is employed to absorb and block incident heat energy and provide a temperature limiting thermostatic function. Further, when thermally activated the material forms a low density cellular structure of low heat transfer coefficient effectively protecting the substrate material from heat source.

Fire-Sorb 1001 Subliming Material - A One Component Thin Film, Fire Resistive Coating For Application To Materials Of Construction

Fire-Sorb 1001 consists essentially of a polymeric binder system, compounds, film forming agents, catalysts, and additives to control surface characteristics, cohesive strength, adhesion, stability, characteristics.

Fire-Sorb 1001 is applied to primed structural elements such as beams for the protection against loss of structural strength during exposure. It provides a hard, durable, aesthetically pleasing finish that allows the steel to be maintained while providing the specified level of fire resistance.

Fire Resistance Ratings - ANSI/UL 263

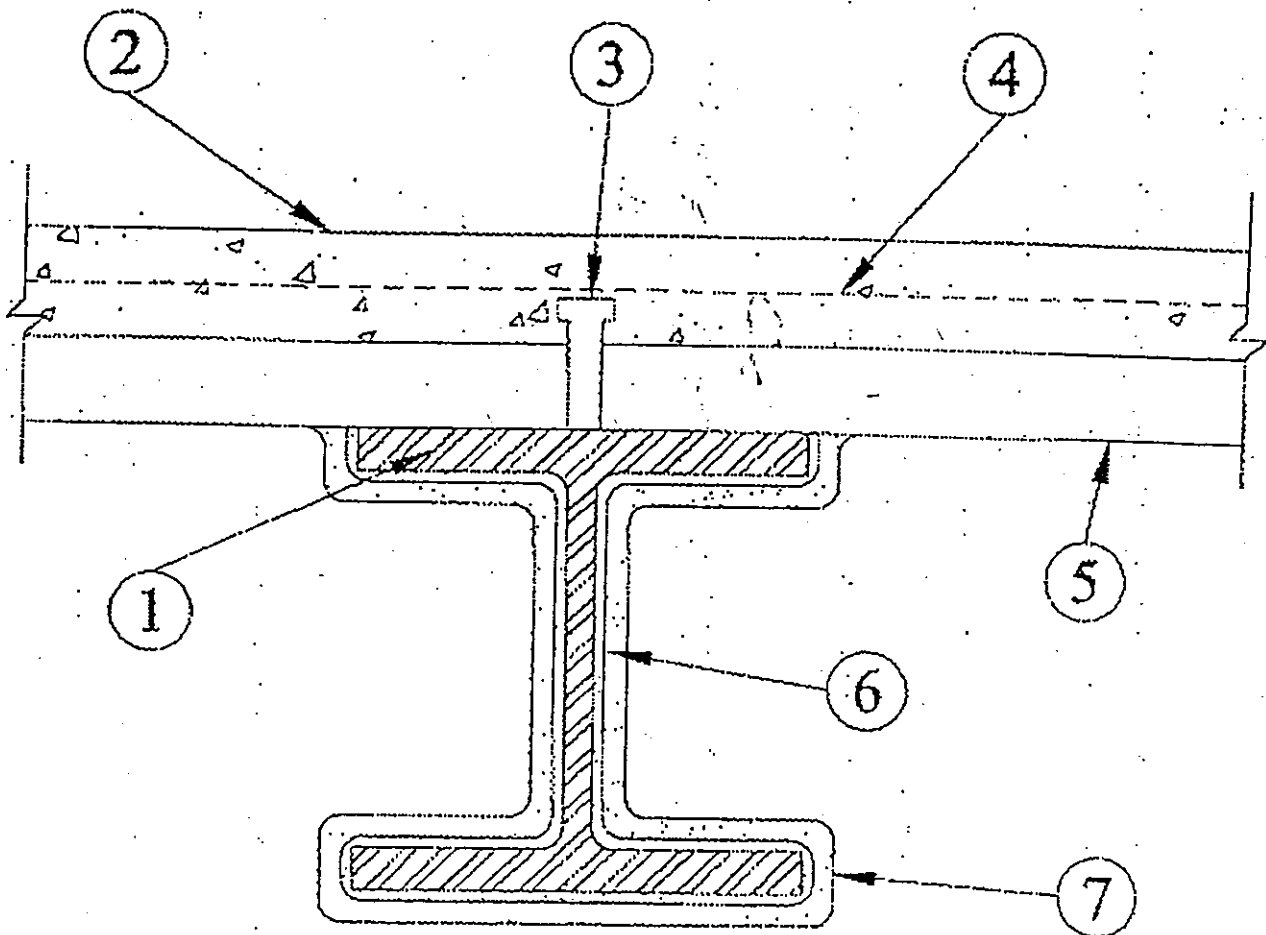
Guide Information

Design No. N608

November 09, 1999

Restrained Beam Ratings—1, 1-1/2, 2, 3, 4 Hr (See Item 7)

Unrestrained Beam Ratings—1, 1-1/2, 2, 3, 4 Hr (See Item 7)



1. Steel Beam W10x88 min size.

2. Normal Weight or Lightweight Concrete Compressive strength, 3000 psi. For

normal weight concrete either carbonate or siliceous aggregate may be used. Unit weight, 148 pcf. For lightweight concrete, unit weight 110 pcf.

3. Shear Connector (Optional) Studs, 3/4 in. diam headed type or equivalent per AISC specifications. Welded to the top flange of beam through the steel floor units.
4. Welded Wire Fabric (Optional) 6 x 6-10/10 SWG.
5. Steel Floor and Form Units 1-1/2, 2, or 3 in. deep fluted, welded to beam.
6. Glass Fiber Mesh 3/16 in. by 3/16 in. square pattern glass fiber reinforcing mesh weighing 5.3 oz per sq. yard shall be placed, following the contour of the beam, in the following manner:

Thkns of Protection Material (in.)	Depth of Placement of Reinforcing Mesh (in.)
.12 - .24	Mid point of Protection Material
.24 and greater	.12

Adjacent pieces of reinforcing mesh along the length of the beam shall be overlapped a min of 2 in.

7. Mastic Coating* Two component spray material applied in more than one coat as described in the manufacturer's application instructions to the thickness shown below. Beams to be primed with an epoxy primer. Flutes above beam to be completely filled with mineral wool insulation having a min density of 6 pcf.

Rating, Hr	Min Thkns, In. Unrestrained Beams	Restrained Beams
1	.12	.12
1-1/2	.12	.12
2	.13	.12
3	.30	.23
4	.47	.39

NU-CHEM INC — Type Thermo-Lag 3000 subliming mastic coating.

*Bearing the UL Classification Marking

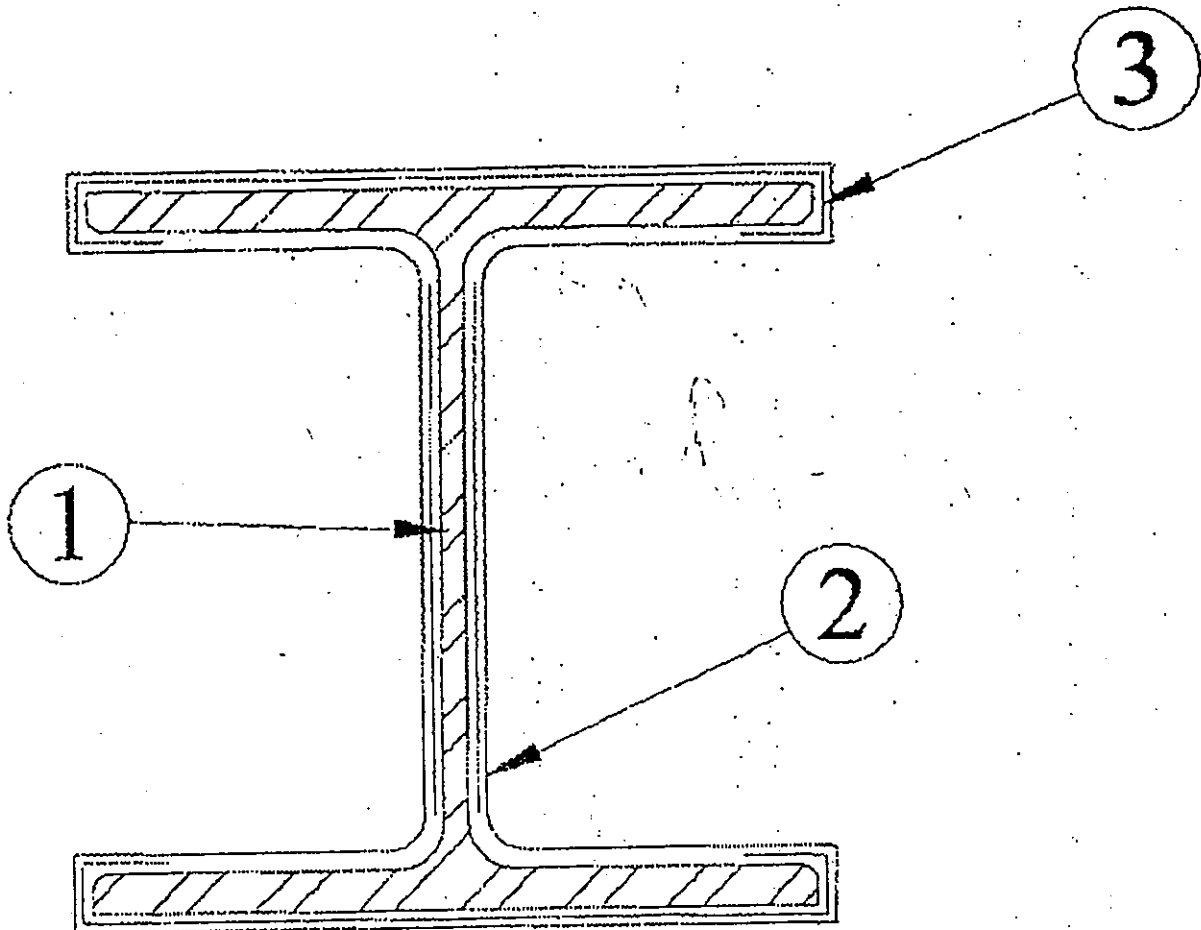
Fire Resistance Ratings - ANSI/UL1709

Guide Information

Design No. XR618

November 23, 1999

Ratings — 1, 1-1/2, 2, 2-1/2, 3, 3-1/2, And 4 Hr



1. Steel Column Min W10X49 wide flange steel column.

2. Mastic Coating Spray applied in one or more coats to the thickness shown in the table below to column surfaces which must be free of dirt, loose scale and oil. Column surfaces to be primed. Coating lightly rolled after final coat with a paint

Rating Hr	Min Thkns In.
1	0.12
1-1/2	0.21
2	0.31
2-1/2	0.41
3	0.50
3-1/2	0.60
4	0.69

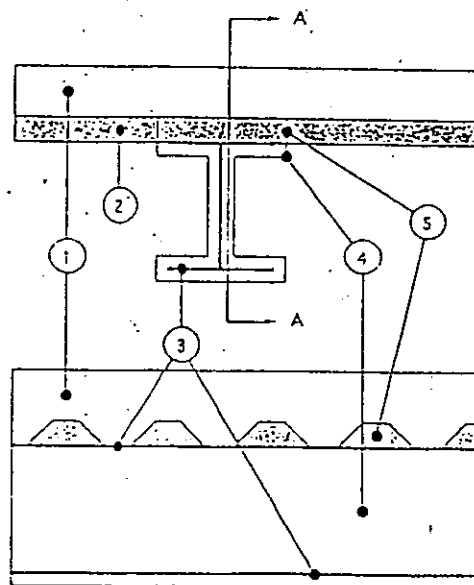
THERMAL SCIENCE INC — Type Thermo-Lag 3000. Investigated for exterior use

3. **Glass Fiber Mesh** Nom 3/16 in. by 3/16 in. glass fiber mesh applied over each flange for the 1 through 4 hr ratings. In addition, the 1-1/2 hr through 3-1/2 hr shall have mesh placed in each web covering the whole web area. The mesh shall be placed at approximately mid-depth of the coating for the 1 and 1-1/2 hr ratings and at 0.12 in. for the remaining ratings.

4. **Top Coat** Two component epoxy topcoat Type Interline 785 applied at an approximate 0.002 in. dry film thickness.

*Bearing the UL Classification Marking

Design No. B 303
RESTRAINED OR UNRESTRAINED BEAM
 ASTM E 119 Rating - 3 hr or less



SECTION A-A

1. **CONCRETE FLOOR** Normal or lightweight concrete (min. 135 pcf) with a min. depth to comply with designated fire resistive rating.
2. **FLUTED STEEL FLOOR UNITS:** Corrugated steel decking, min. 1-1/2 in. deep, min. 20 GA.

4. FIRE-RESISTIVE COATING: Spray or paint in one or more coats according to the manufacturer's instructions. Thickness determined by table for desired rating and column. Wrap fiberglass reinforcing mesh completely around the column allowing for a minimal (1/2 in.) overlap at the seams. Apply mesh at mid depth of the coating up to max. .240 in. and for thicker coatings apply mesh at .120 in.

Listed Manufacturer:

Nu-Chem Inc. -

High-Performance Coatings

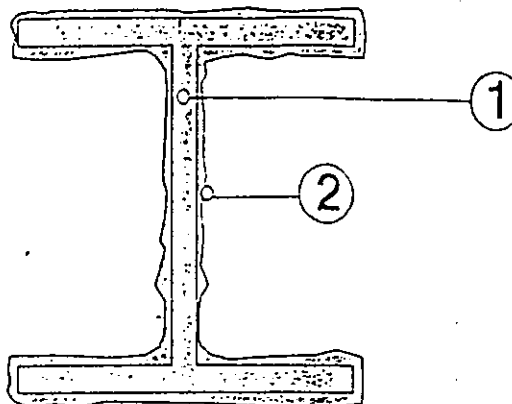
High-Performance Coating System

Thermo-Lag 3000

5. FLUTE FILLER: Completely Fill the flutes between beam and the fluted steel floor units with 4 pcf mineral wool** or 4 pcf ceramic fiber blanket**. (** Listed with Omega Point Laboratories)

Design No. B 303											
HP/A	W/D	60 min.		90 min.		120 min.		150 min.		180 min.	
		mm	In	mm	.In	mm	In	mm	In	mm	In
30	4.46	3.0	0.12	3.0	0.12	3.0	0.12	3.0	0.12	3.3	0.13
40	3.34	3.0	0.12	3.0	0.12	3.0	0.12	3.5	0.14	4.2	0.17
50	2.67	3.0	0.12	3.0	0.12	3.3	0.13	4.2	0.17	5.0	0.20
60	2.23	3.0	0.12	3.0	0.12	3.8	0.15	4.8	0.19	5.8	0.23
70	1.91	3.0	0.12	3.2	0.13	4.3	0.17	5.4	0.21	6.5	0.26
75	1.78	3.0	0.12	3.3	0.13	4.5	0.18	5.7	0.22	6.8	0.27
80	1.67	3.0	0.12	3.5	0.14	4.7	0.19	5.9	0.23	7.2	0.28
85	1.57	3.0	0.12	3.7	0.15	4.9	0.19	6.2	0.24	7.5	0.30
90	1.49	3.0	0.12	3.8	0.15	5.1	0.20	6.5	0.26	7.8	0.31
95	1.41	3.0	0.12	3.9	0.15	5.3	0.21	6.7	0.26	8.1	0.32
100	1.34	3.0	0.12	4.1	0.16	5.5	0.22	6.9	0.27	8.4	0.33
110	1.22	3.0	0.12	4.3	0.17	5.9	0.23	7.4	0.29	8.9	0.35
120	1.11	3.0	0.12	4.6	0.18	6.2	0.24	7.8	0.31	9.4	0.37
130	1.03	3.1	0.12	4.8	0.19	6.5	0.26	8.2	0.32	9.9	0.39
140	0.95	3.3	0.13	5.0	0.20	6.8	0.27	8.6	0.34	10.3	0.41
150	0.89	3.4	0.13	5.2	0.20	7.1	0.28	8.9	0.35	10.7	0.42
160	0.84	3.6	0.14	5.4	0.21	7.3	0.29	9.2	0.36	11.2	0.44
170	0.79	3.7	0.15	5.6	0.22	7.4	0.29	9.5	0.37	11.6	0.46
180	0.74	3.9	0.15	5.8	0.23	7.7	0.30	9.8	0.39	12.0	0.47
190	0.70	4.0	0.16	6.0	0.24	8.0	0.31	10.1	0.40	12.3	0.48
200	0.67	4.1	0.16	6.2	0.24	8.2	0.32	10.4	0.41	12.7	0.50
210	0.64	4.2	0.17	6.3	0.25	8.5	0.33	10.6	0.42	13.0	0.51
220	0.61	4.3	0.17	6.5	0.26	8.7	0.34	10.9	0.43	13.4	0.53
230	0.58	4.5	0.18	6.7	0.26	8.9	0.35	11.1	0.44	13.7	0.54
240	0.56	4.6	0.18	6.9	0.27	9.1	0.36	11.4	0.45	14.0	0.55
250	0.53	4.7	0.19	7.0	0.28	9.3	0.37	11.7	0.46	14.3	0.56
260	0.51	4.8	0.19	7.2	0.28	9.5	0.37	11.9	0.47	14.6	0.57
270	0.50	4.9	0.19	7.3	0.29	9.7	0.38	12.2	0.48	14.9	0.59
280	0.48	5.0	0.20	7.4	0.29	9.9	0.39	12.4	0.49	15.1	0.59
290	0.46	5.0	0.20	7.6	0.30	10.1	0.40	12.6	0.50	15.1	0.59
300	0.45	5.1	0.20	7.7	0.30	10.3	0.41	12.8	0.50	15.4	0.61
302	0.44	5.2	0.20	7.7	0.30	10.3	0.41	12.9	0.51	15.5	0.61

Design No. C 301
COLUMN
 ASTME 119 Rating - 3 hr or less



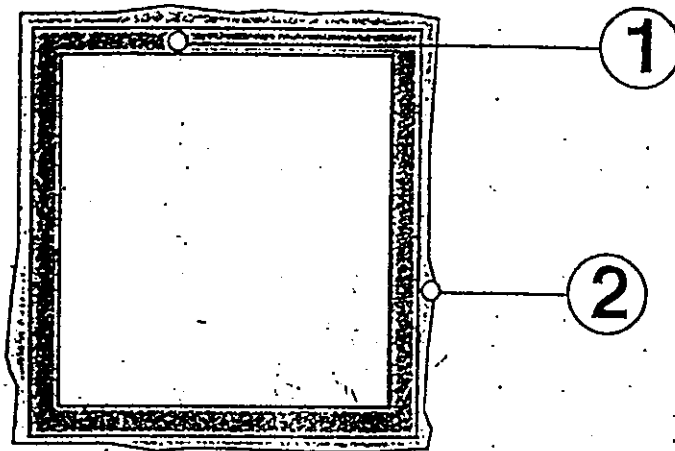
1. STEEL COLUMN: W-Shaped.
2. FIRE-RESISTIVE COATING: Spray or paint in one or more coats according to the manufacturer's instructions. Thickness determined by table for desired rating and column. Wrap fiberglass reinforcing mesh completely around the column allowing for a minimal (1/2 in.) overlap at the seams. Apply mesh at mid depth of the coating up to max. .240 in. and for thicker coatings apply mesh at .120 in.

Listed Manufacturer:

Nu-Chem Inc. -
 High-Performance Coatings
 High-Performance Coating System
 Thermo-Lag 3000

Design No. C 301											
HP/A	W/D	60 min.		90 min.		120 min.		150 min.		180 min.	
l/m	lb./ft/in	mm	in	mm	in	mm	in	mm	in	mm	in
30	4.46	3.0	0.12	3.0	0.12	3.0	0.12	3.0	0.12	3.3	0.13
40	3.34	3.0	0.12	3.0	0.12	3.0	0.12	3.5	0.14	4.2	0.17
50	2.67	3.0	0.12	3.0	0.12	3.3	0.13	4.2	0.17	5.0	0.20
60	2.23	3.0	0.12	3.0	0.12	3.8	0.15	4.8	0.19	5.8	0.23
70	1.91	3.0	0.12	3.2	0.13	4.3	0.17	5.4	0.21	6.5	0.26
75	1.78	3.0	0.12	3.3	0.13	4.5	0.18	5.7	0.22	6.8	0.27
80	1.67	3.0	0.12	3.5	0.14	4.7	0.19	5.9	0.23	7.2	0.28
85	1.57	3.0	0.12	3.7	0.15	4.9	0.19	6.2	0.24	7.5	0.30
90	1.49	3.0	0.12	3.8	0.15	5.1	0.20	6.5	0.26	7.8	0.31
95	1.41	3.0	0.12	3.9	0.15	5.3	0.21	6.7	0.26	8.1	0.32
100	1.34	3.0	0.12	4.1	0.16	5.5	0.22	6.9	0.27	8.4	0.33
110	1.22	3.0	0.12	4.3	0.17	5.9	0.23	7.4	0.29	8.9	0.35
120	1.11	3.0	0.12	4.6	0.18	6.2	0.24	7.8	0.31	9.4	0.37
130	1.03	3.1	0.12	4.9	0.19	6.5	0.25	8.2	0.32	9.9	0.39
140	0.95	3.3	0.13	5.0	0.20	6.8	0.27	8.6	0.34	10.3	0.41
150	0.89	3.4	0.13	5.2	0.20	7.1	0.28	8.9	0.35	10.7	0.42
160	0.84	3.5	0.14	5.4	0.21	7.3	0.29	9.2	0.36	11.2	0.44
170	0.79	3.7	0.15	5.6	0.22	7.4	0.29	9.5	0.37	11.6	0.46
180	0.74	3.9	0.15	5.8	0.23	7.7	0.30	9.8	0.39	12.0	0.47
190	0.70	4.0	0.15	6.0	0.24	8.0	0.31	10.1	0.40	12.3	0.48
200	0.67	4.1	0.15	6.2	0.24	8.2	0.32	10.4	0.41	12.7	0.50
210	0.64	4.2	0.17	6.3	0.25	8.5	0.33	10.6	0.42	13.0	0.51
220	0.61	4.3	0.17	6.5	0.26	8.7	0.34	10.9	0.43	13.4	0.53
230	0.58	4.5	0.18	6.7	0.26	8.9	0.35	11.1	0.44	13.7	0.54
240	0.56	4.5	0.18	6.9	0.27	9.1	0.35	11.4	0.45	14.0	0.55
250	0.53	4.7	0.19	7.0	0.28	9.3	0.37	11.7	0.46	14.3	0.56
255	0.51	4.8	0.19	7.2	0.28	9.5	0.37	11.9	0.47	14.6	0.57
270	0.50	4.9	0.19	7.3	0.29	9.7	0.38	12.2	0.48	14.9	0.59
280	0.48	5.0	0.20	7.4	0.29	9.9	0.39	12.4	0.49	15.1	0.59
290	0.45	5.0	0.20	7.6	0.30	10.1	0.40	12.6	0.50	15.1	0.59
300	0.45	5.1	0.20	7.7	0.30	10.3	0.41	12.8	0.50	15.4	0.61
302	0.44	5.2	0.20	7.7	0.30	10.3	0.41	12.9	0.51	15.5	0.61

Design No. C 302
COLUMN
ASTM E 119 Rating - 3 hr or less



1. STEEL COLUMN: Tubular - Rectangular Hollow Shape
2. FIRE-RESISTIVE COATING: Spray or paint in one or more coats according to the manufacturer's Instructions. Thickness determined by table for desired rating and column. All designs with fire endurance ratings of 90 minutes (1-1/2 h) or more and with a thickness of 0.08 in. (2.0 mm) and greater require the use of a single, internal layer of HTF carbon fiber mesh fabric, 1.03 oz/yd min. Apply mesh at mid depth of the coating up to max. .240 in. and for thicker coatings apply mesh at .120 in.

Listed Manufacturer:

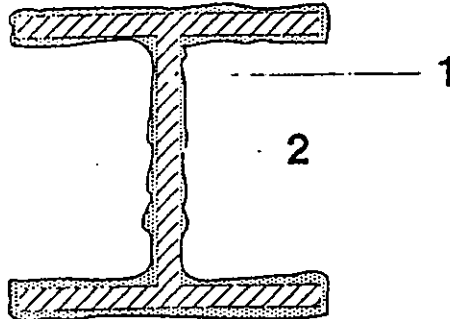
Nu-Chem Inc. -
High-Performance Coatings
High-Performance Coating System
Fire-Sorb 1001

Design No. C 302											
HP/A	W/D	60 min.		90 min.		120 min.		150 min.		180 min.	
l/m	lb./ft ² /in	mm	In	mm	In	mm	In	mm	In	mm	In
25	5.35	0.6	0.02	0.9	0.04	1.5	0.06	2.0	0.03	2.5	0.10
30	4.46	0.6	0.02	1.1	0.04	1.7	0.07	2.4	0.09	3	0.12
35	3.82	0.6	0.02	1.3	0.05	2.0	0.08	2.7	0.11	3.5	0.14
40	3.34	0.6	0.02	1.5	0.06	2.3	0.09	3.1	0.12	3.9	0.15
45	2.97	0.7	0.03	1.6	0.06	2.5	0.10	3.4	0.13	4.4	0.17
50	2.67	0.8	0.03	1.8	0.07	2.8	0.11	3.8	0.15	4.8	0.19
55	2.43	0.9	0.04	2.0	0.08	3.0	0.12	4.1	0.16	5.2	0.20
60	2.23	0.9	0.04	2.1	0.08	3.3	0.13	4.5	0.18	5.6	0.22
65	2.06	1.0	0.04	2.3	0.09	3.5	0.14	4.8	0.19	6.1	0.24
70	1.91	1.1	0.04	2.4	0.09	3.8	0.15	5.1	0.20	6.5	0.26
75	1.78	1.1	0.04	2.6	0.10	4.0	0.16	5.4	0.21	6.9	0.27
80	1.67	1.2	0.05	2.7	0.11	4.2	0.17	5.7	0.22	7.3	0.29
85	1.57	1.3	0.05	2.9	0.11	4.5	0.18	6.0	0.24	7.6	0.30
90	1.49	1.3	0.05	3.0	0.12	4.7	0.19	6.3	0.25	8.0	0.31
95	1.41	1.4	0.06	3.1	0.12	4.9	0.19				
100	1.34	1.5	0.06	3.3	0.13	5.1	0.20				
110	1.22	1.6	0.06	3.5	0.14	5.5	0.22				
120	1.11	1.7	0.07	3.8	0.15	5.9	0.23				
130	1.03	1.8	0.07	4.0	0.16	6.3	0.25				
140	0.95	1.9	0.07	4.3	0.17	6.7	0.26				
150	0.89	2.0	0.08	4.5	0.18	7.0	0.28				
160	0.84	2.1	0.08	4.7	0.19	7.4	0.29				
170	0.79	2.2	0.09								
180	0.74	2.3	0.09								

Design No. C 305

COLUMN

ASTM E119 Rating - 2 hr or less



1. STEEL COLUMN: W-Shaped.
2. FIRE-RESISTIVE COATING: Spray or paint in one or more coats according to the manufacturer's instructions. Thickness determined by table for desired rating and column.

Listed Manufacturer:

Nu-Chem Inc.

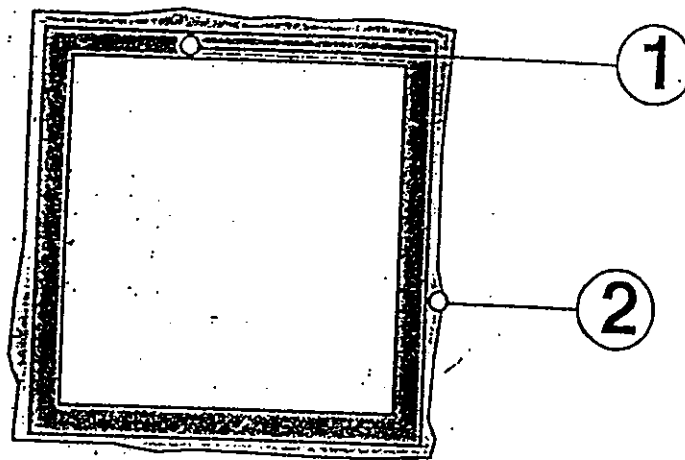
High-Performance Coatings

High-Performance Coating System

Fire-Sorb 1001

Design No. C 305									
Hp/A	W/D	30 min		60 min		90 min		120 min	
		Thickness		Thickness		Thickness		Thickness	
(m-1)	(lb/in./ft)	(mm)	(in.)	(mm)	(in.)	(mm)	(in.)	(mm)	(in.)
45	2.93	0.74	0.029	0.74	0.029	0.84	0.033	1.18	0.046
50	2.64	0.74	0.029	0.74	0.029	0.92	0.036	1.29	0.051
60	2.20	0.74	0.029	0.74	0.029	1.07	0.042	1.50	0.059
70	1.89	0.74	0.029	0.74	0.029	1.21	0.048	1.69	0.067
80	1.65	0.74	0.029	0.80	0.032	1.34	0.053	1.88	0.074
90	1.47	0.74	0.029	0.88	0.035	1.47	0.058		
100	1.32	0.74	0.029	0.95	0.037	1.61	0.063		
110	1.20	0.74	0.029	1.01	0.040	1.74	0.068		
120	1.10	0.74	0.029	1.08	0.042	1.87	0.074		
130	1.02	0.74	0.029	1.14	0.045	2.00	0.079		
140	0.94	0.74	0.029	1.19	0.047	2.14	0.084		
150	0.88	0.74	0.029	1.25	0.049	2.27	0.089		
160	0.83	0.74	0.029	1.30	0.051	2.40	0.095		
162	0.82	0.74	0.029	1.31	0.051	2.42	0.095		

Design No. C 304 NPD
COLUMN
IMO/NPD Hydrocarbon Curve
Rating - 3 hr or less



This Listing is based upon the hydrocarbon fire time-temperature curve conditions required by the International Maritime Organization. The Norwegian Petroleum Directorate, NPD, also defines this exposure.

1. STEEL COLUMN: Tubular - Rectangular Hollow Shape.
2. FIRE-RESISTIVE COATING: Applied by spraying or painting in one or more coats to a final thickness according to the manufacturer's instructions and according to that product's Listed hourly rated thickness per table.

Listed Manufacturer:

Nu-Chem Inc. -
High-Performance Coatings
High-Performance Coating System
Thermo-Lag 3000

Final thickness of 6 mm or less, the high temperature fabric is placed at the nominal midpoint of the coating (± 1 mm). For Final thicknesses greater than 6 mm, the high temperature fabric is placed 3 mm from the surface of the steel (± 1 mm). The first layer of THERMO-LAG 3000 is applied to the desired thickness. The high temperature fabric is pressed into the uncured coating so as to exude the coating through the openings in the high temperature fabric. The high

temperature fabric is installed to completely cover the surface of the steel column, with 1" (25 mm) overlaps at the seams.

Design No. C 304 NPD											
Data Based on 400°C Average											
Hp/A	WD	60 min		90 min		120 min		150 min		180 min	
1/in	lb/in	mm	in	mm	in	mm	in	mm	in	mm	in
22	6.08	3.2	0.13	3.2	0.13	3.3	0.13	4.4	0.17	5.5	0.22
25	5.35	3.2	0.13	3.2	0.13	3.7	0.15	4.9	0.19	6.1	0.24
30	4.46	3.2	0.13	3.2	0.13	4.3	0.17	5.7	0.22	7.1	0.28
35	3.82	3.2	0.13	3.2	0.13	4.8	0.19	6.4	0.25	8.1	0.32
40	3.34	3.2	0.13	3.6	0.14	5.4	0.21	7.2	0.28	9.0	0.35
45	2.97	3.2	0.13	3.9	0.15	5.9	0.23	7.8	0.31	9.8	0.39
50	2.67	3.2	0.13	4.2	0.17	6.4	0.25	8.5	0.33	10.6	0.42
55	2.43	3.2	0.13	4.5	0.18	6.8	0.27	9.1	0.36	11.4	0.45
60	2.23	3.2	0.13	4.8	0.19	7.2	0.28	9.7	0.38	12.1	0.48
65	2.06	3.2	0.13	5.1	0.20	7.7	0.30	10.2	0.40	12.8	0.50
70	1.91	3.2	0.13	5.3	0.21	8.0	0.31	10.8	0.43	13.5	0.53
75	1.78	3.2	0.13	5.6	0.22	8.4	0.33	11.3	0.44	14.1	0.56
80	1.67	3.2	0.13	5.8	0.23	8.8	0.35	11.7	0.46	14.7	0.58
85	1.57	3.2	0.13	6.1	0.24	9.1	0.36	12.2	0.48	15.3	0.60
90	1.49	3.2	0.13	6.3	0.25	9.4	0.37	12.6	0.50	15.8	0.62
95	1.41	3.2	0.13	6.5	0.26	9.8	0.39	13.0	0.51	16.3	0.64
100	1.34	3.3	0.13	6.7	0.26	10.1	0.40	13.4	0.53	16.8	0.66
110	1.22	3.5	0.14	7.0	0.28	10.6	0.42	14.2	0.56	17.8	0.70
120	1.11	3.6	0.14	7.4	0.29	11.1	0.44	14.9	0.59	18.6	0.73
130	1.03	3.8	0.15	7.7	0.30	11.6	0.45	15.5	0.61	19.4	0.76
140	0.95	4.0	0.16	8.0	0.31	12.1	0.48	16.1	0.63		
150	0.89	4.1	0.16	8.3	0.33	12.5	0.49	16.7	0.66		
160	0.84	4.2	0.17	8.5	0.33	12.9	0.51	17.2	0.68		
170	0.79	4.3	0.17	8.8	0.35	13.2	0.52	17.7	0.70		
180	0.74	4.4	0.17	9.0	0.35	13.6	0.54	18.1	0.71		
190	0.70	4.5	0.18	9.2	0.36	13.9	0.55	18.6	0.73		
200	0.67	4.6	0.18	9.4	0.37	14.2	0.56	19.0	0.75		
210	0.64	4.7	0.19	9.6	0.38	14.5	0.57	19.4	0.76		
212	0.63	4.8	0.19	9.6	0.38	14.5	0.57	19.4	0.76		

Note: The following represents a summary of the test result of surface burning characteristics of masic coating in accordance with the requirements of ASTM E84.

Sample Description	Flame Spread Index	Smoke Developed Index
Thermo-Lag 3000	0	0
Fire-Sorb 1001	0	0

Recommendation - That the above described column protection assemblies be accepted for Class I and Class II Buildings only, as having the fire resistance ratings given above, when members framing into the columns have at least the same fire resistance rating, provided that following requirements for application and protection of the intumescent coating fireproofing be adhered to:

1. Where used in Class I Buildings, subject material shall be used for fireproofing of selected structural members and shall be limited to 20% of the gross area of all structural members on any one floor and a maximum of 20% of the gross area of all structural members in the entire building.
2. Where used for protection of floor column(s) in fireproofing buildings each such column(s) shall bear an identifying tag installed 7'-0" above finished floor. Subject tag shall be of metal construction mechanically attached to such column(s) and shall state the following: "This beam, has been fireproofed with MEA approved Fire-Sorb 1001 or Thermo-Lag 3000 finish and such finish shall not be removed" nor any subsequent coating shall be applied other than Fire-Sorb 1001 or Thermo-Lag 3000.
3. Surfaces to received intumescent coating shall be cleaned prior to the application of the fireproofing.
4. The finished fireproofing shall be applied to a uniform thickness, when shall not be less than the minimum thickness specified.
5. The general contractor and the owner shall provide qualified personnel to supervise the application of the sprayed fire resistive material. They shall certify to the Department of Buildings that the finished fireproofing of the completed building is in full compliance with the acceptance requirements and drawings approved by the Department of Buildings.
6. The installation of the sprayed fire resistive materials shall be subject to the controlled inspection requirements of Section 27-132.
7. The use of this material shall be subject to all pertinent regulations of the Department of Air Resources and the Department of Health.
8. All installations shall comply with 118-68 GR, the New York City Building Code, the Fire Department Directives, the manufacturer's instructions and laboratory recommendation.
9. All shipments and deliveries of the materials comprising this assembly shall be accompanied by a certificate or label certifying that the materials shipped or delivered are equivalent to those tested and acceptable for use, as provided for in Section 27-131 of the Building Code.

Final Acceptance March/28/2008
Examined by S. Derk Hudson