

**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.

Ronny A. Livian, P.E., Acting Commissioner
MEA 97-00-M Vol. III

Report of Material and Equipment Acceptance Division

Manufacturer - Star Maling Og Lakkfabrikk A/S, P.O. Box 593, Lierstranda, Norway.

Trade Name(s) - Carboline Nullifire S606.

Product - Mastic coating for fire protection.

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

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

Laboratory - Underwriters Laboratories, Inc., ITS Intertek Testing Services.

Test Report - UL File R11193, Project R11193/98NK37002, dated November 8, 2000.

ITS Project No. J98028784-231 and J20012362-231.

Description - Type Nullifire S606 mastic coating per requirement of ITS Intertek Testing Services is designed to fire-proof interior steelwork of steel that includes wide flange, hollow structural steel in the following tables:

120 Minutes Steel Section Size	Hp/A (m ¹)	W/D	D.F.T. (mm)	D.F.T. (in.)	Application Rate (g/m ²)
FOUR-SIDED					
	221 - 240	0.606 - 0.558	6.15	0.2421	12,000
	201 - 220	0.667 - 0.609	5.35	0.2106	11,000
	181 - 200	0.740 - 0.670	4.55	0.1791	9,500
	161 - 180	0.832 - 0.744	4.10	0.1614	8,500
	141 - 160	0.950 - 0.837	3.85	0.1516	8,000
	121 - 140	1.107 - 0.957	3.55	0.1398	7,500
	101 - 120	1.327 - 1.117	2.95	0.1161	6,000
	81 - 100	1.654 - 1.340	2.40	0.0945	5,000
	61 - 80	2.197 - 1.675	2.00	0.0787	4,500
	41 - 60	3.268 - 2.233	1.65	0.0650	3,500
	21 - 40	6.381 - 3.350	1.45	0.0571	3,000
THREE-SIDED					
	221 - 240	0.606 - 0.558	4.30	0.1693	9,000
	201 - 220	0.667 - 0.609	4.05	0.1594	8,500
	181 - 200	0.740 - 0.670	3.75	0.1476	8,000
	161 - 180	0.832 - 0.744	3.40	0.1339	7,000
	141 - 160	0.950 - 0.837	3.10	0.1220	6,500
	121 - 140	1.107 - 0.957	2.70	0.1063	5,500
	101 - 120	1.327 - 1.117	2.30	0.0906	5,000
	81 - 100	1.654 - 1.340	1.75	0.0689	4,000
	61 - 80	2.197 - 1.675	1.45	0.0571	3,000
	41 - 60	3.268 - 2.233	1.25	0.0492	3,000
	21 - 40	6.381 - 3.350	1.05	0.0413	2,500
HOLLOW SECTION					
RHS	81 - 100	1.654 - 1.340	4.10	0.1614	8,500
RHS	71 - 80	1.827 - 1.675	4.10	0.1614	8,500
RHS	21 - 70	6.380 - 1.914	4.10	0.1614	8,500

Fire Resistance Ratings
NULLIFIRE S606 60 Minutes

Steel Section Size	Hp/A (m ²)	W/D	D.F.T. (mm)	D.F.T. (in.)	Application Rate (g/m ²)
FOUR-SIDED					
	301 - 320	0.445 - 0.419	4.15	0.16	8,500
	281 - 300	0.477 - 0.447	3.95	0.16	8,000
	261 - 280	0.513 - 0.479	3.70	0.15	7,500
	241 - 260	0.556 - 0.515	3.45	0.14	7,000
	221 - 240	0.606 - 0.558	3.25	0.13	7,000
	201 - 220	0.667 - 0.609	3.00	0.12	6,500
	181 - 200	0.740 - 0.670	2.75	0.11	6,000
	161 - 180	0.832 - 0.744	2.55	0.10	5,500
	141 - 160	0.950 - 0.837	2.30	0.09	4,500
	121 - 140	1.107 - 0.957	2.05	0.08	4,500
	101 - 120	1.327 - 1.117	1.70	0.07	3,500
	81 - 100	1.654 - 1.340	1.45	0.06	3,000
	61 - 80	2.197 - 1.675	1.25	0.05	3,000
	41 - 60	3.268 - 2.233	1.05	0.04	2,500
	21 - 40	6.381 - 3.350	0.90	0.04	2,000
THREE-SIDED					
	301 - 320	0.445 - 0.419	3.45	0.14	7,000
	281 - 300	0.477 - 0.447	3.25	0.13	7,000
	261 - 280	0.513 - 0.479	3.00	0.12	6,500
	241 - 260	0.556 - 0.515	2.80	0.11	6,000
	221 - 240	0.606 - 0.558	2.60	0.10	5,500
	201 - 220	0.667 - 0.609	2.35	0.09	4,500
	181 - 200	0.740 - 0.670	2.15	0.08	4,500
	161 - 180	0.832 - 0.744	2.00	0.08	4,500
	141 - 160	0.950 - 0.837	1.80	0.07	4,000
	121 - 140	1.107 - 0.957	1.60	0.06	3,500
	101 - 120	1.327 - 1.117	1.40	0.06	3,000
	81 - 100	1.654 - 1.340	1.20	0.05	2,500
	61 - 80	2.197 - 1.675	1.00	0.04	2,500
	41 - 60	3.268 - 2.233	0.80	0.03	2,000
	21 - 40	6.381 - 3.350	0.60	0.02	1,500

Fire Resistance Ratings
NULLIFIRE S606 90 Minutes

Steel Section Size	Hp/A (m ²)	W/D	D.F.T. (mm)	D.F.T. (in.)	Application Rate (g/m ²)
HOLLOW SECTION					
RHS	121 - 140	1 107 - 0 957	3 40	0 13	7 000
RHS	101 - 120	1 327 - 1 117	2 65	0 10	5 500
RHS	81 - 100	1 654 - 1 340	2 00	0 08	4 500
RHS	71 - 80	1 888 - 1 675	1 75	0 07	4 000
RHS	21 - 70	6 381 - 1 914	1 60	0 06	3 500
CHS	121 - 130	1 107 - 1 031	3 90	0 15	8 000
CHS	101 - 120	1 327 - 1 117	3 35	0 13	7 000
CHS	81 - 100	1 654 - 1 340	2 55	0 10	5 500
CHS	71 - 80	1 888 - 1 675	2 20	0 09	4 500
CHS	21 - 70	6 381 - 1 914	2 05	0 08	4 500

Fire Resistance Ratings
NULLIFIRE S606 60 Minutes

Steel Section Size	Hp/A (m ²)	W/D	D.F.T. (mm)	D.F.T. (in.)	Application Rate (g/m ²)
HOLLOW SECTION					
RHS	241 - 260	0 556 - 0 515	3 50	0 1378	7 500
RHS	221 - 240	0 606 - 0 558	3 20	0 1260	6 500
RHS	201 - 220	0 667 - 0 609	2 91	0 1146	6 000
RHS	181 - 200	0 740 - 0 670	2 65	0 1043	5 500
RHS	161 - 180	0 832 - 0 744	2 15	0 0846	4 500
RHS	141 - 160	0 950 - 0 837	1 70	0 0669	3 500
RHS	121 - 140	1 107 - 0 957	1 36	0 0535	3 000
RHS	101 - 120	1 327 - 1 117	1 05	0 0413	2 500
RHS	81 - 100	1 654 - 1 340	0 75	0 0295	2 000
RHS	71 - 80	1 888 - 1 675	0 55	0 0217	1 500
RHS	20 - 70	6 381 - 1 914	0 55	0 0217	1 500
CHS	241 - 260	0 556 - 0 515	3 95	0 1555	8 000
CHS	221 - 240	0 606 - 0 558	3 65	0 1437	7 500
CHS	201 - 220	0 667 - 0 609	3 30	0 1299	7 000
CHS	181 - 200	0 740 - 0 670	3 00	0 1181	6 500
CHS	161 - 180	0 832 - 0 744	2 65	0 1043	5 500
CHS	141 - 160	0 950 - 0 837	2 25	0 0886	4 500
CHS	121 - 140	1 107 - 0 957	1 85	0 0728	4 000
CHS	101 - 120	1 327 - 1 117	1 40	0 0551	3 000
CHS	81 - 100	1 654 - 1 340	1 00	0 0394	2 500
CHS	71 - 80	1 888 - 1 675	0 75	0 0295	2 000
CHS	20 - 70	6 381 - 1 914	0 60	0 0236	1 500

Note: The following represents a summary of the test result of surface burning characteristics of mastic coating Nullifire S606 in accordance with the requirement of ASTM E84:

Sample Description	Flame Spread Index	Smoke Developed Index
1/4 inch Nullifire S606	15	10

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 Nullifire S606 finish and such finish shall not be removed" nor any subsequent coating shall be applied other than Nullifire S606.
3. Surfaces to receive 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 NOV/30/2001

Examined by S. Derk Hudson