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December 5, 2003

Mr. Randy G. Clark
Rectorseal
2601 Spenwick Drive
Houston, TX 77055

FINAL REPORT

Subject: SwRI® Project No. 01.10085.01.406
*Fire Exposure test in general accordance with IEEE-383,
Flame Propagation Test, dated 1974, Section 2.5 Flame Tests
(Consisting of 4 Pages)*

Dear Mr. Clark:

This letter constitutes our final report on the above-referenced project. This report contains a description of the material evaluated, procedures used, and the results. Note that the results apply only to the material tested, in the manner tested, and not to the entire production of this or similar materials when used in combination with other materials.

The cable trays with power cables installed and coated were received from the Client in a "ready to test" condition on March 23, 1995.

The Client prepared three 8-ft galvanized steel ladder cable trays measuring 12 inches wide x 3 inches deep, loaded with electrical power cables identified as Rome XLP Power Cable E-60379 (UL) MV-90 DRY 2 AWG CU 5KV, nonshielded and coated with intumescent cable coating, identified as Metacaulk® Industrial Cable Coating, a water-based, latex, intumescent, fire retardant cable coating, which was spray applied in two coats at a coverage rate of 12 sq ft/gal.

The cable trays were subjected to the flame propagation test in accordance with the procedures as specified in IEEE-383, dated 1974, Section 2.5, paragraphs 2.5.1 through 2.5.5. The three tests were conducted on March 29, 1995. Observations taken during the tests are provided in the following pages. Based on these observations, the intumescent cables identified as Metacaulk® Industrial Cable Coating, **passed** the acceptance criteria as specified in *IEEE-383 Flame Propagation Test*.

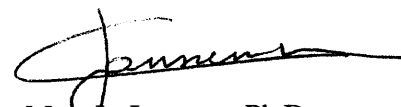
If you should have any questions or comments, or if I can be of any further assistance, please do not hesitate to contact me at 210-522-3718, by fax at 210-522-3377, or by e-mail to anthony.sauceda@swri.org.

Sincerely,



Anthony L. Saucedo
Engineering Technologist
Material and Flammability Section

Approved by:



Marc L. Janssens, Ph.D.
Director
Department of Fire Technology

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Date of Test: March 29, 1995
Test Material: Metacaulk[®] Industrial Cable Coating

Ambient temperature at start of test was 69°F and 35% relative humidity

TIME (min:sec)	TEST ONE OBSERVATIONS
00:00	start of test
00:30	discoloration of cable coating
01:00	surface charring, flames to 4 ft
01:38	small pieces of cable coating falling to floor
01:50	spotty ignition of cables at burner location, light gray buildup of smoke
02:26	steady ignition of cables at burner location
02:35	surface cracks in cable coating, flames to 4 ft
10:00	no change, flames still at 4 ft
15:00	surface blisters, swelling of the cable coating, charring with small pieces of the cable coating falling to the floor, flames to the 4.5 ft level
20:00	burner extinguished, flames continuing to burn from the 2.5 ft level up to the 3.5 ft level
25:00	flames have reduced in size and are still burning from the 2.5 to the 3.5 ft level
28:30	flames have gone out at the 3.5 ft level, a small flame remains at the 2.5 ft level
35:19	all flaming ceased, end of test

Cable damage – back side burner

Damage to the cables resulted in severe surface charring from the 24 in. level up to the 39 in. level (total height of charring: 15 inches).

Surface distortion and melting of the cable coating was from the 39 in. level up to the 67 in. level (total height of melt away/distortion: 28 inches).

Cable damage – front of cable tray

Damage to the cables resulted in severe surface charring from the 24 in. level up to the 58 in. level (total height of charring: 24 inches).

Surface distortion and melting of the cable coating was from the 58 in. level up to the 74 in. level (total height of melt away/distortion: 16 inches).

The intumescent cable coating identified as Metacaulk[®] Industrial Cable Coating, when spray applied to electrical power cables identified as Rome XLP Power Cable E-60379 (UL) MV-90 DRY 2 AWG CU 5KV nonshielded, has **passed** the IEEE-383 flame spread test by not allowing the flames to spread up and past the 8 ft extremity of the cable tray.

Date of Test: March 29, 1995
Test Material: Metacaulk[®] Industrial Cable Coating

Ambient temperature at start of test was 70°F and 35% relative humidity

TIME (min:sec)	TEST TWO OBSERVATIONS
00:00	start of test
00:18	discoloration of cable coating
01:28	spotty ignition of cable at the burner location
02:07	surface cracks in the cable coating at the burner location
02:32	small pieces falling to floor
02:39	steady ignition of the cables at the burner location, light gray buildup of smoke in room
05:00	surface swelling and small blisters developing on the cables up to the 5 ft level with flames to the 4.5 ft level
10:00	flames still at the 4.5 ft level, light gray smoke in room
15:00	no change
20:00	burner extinguished, flames are continuing to burn from the 1.5 ft level up to the 3.75 ft level
23:26	flames have gone out at the 1.5 ft level, flames are now between 2.5 and 3.5 ft
27:30	all flaming has gone out on the front side of the cable tray, however there is still flaming on the back side of the cable tray at the 3 ft level
30:11	flaming has gone out on the back side of the cable tray
30:15	all flaming ceased, end of test

Cable damage – back side burner

Damage to the cables resulted in severe surface charring from the 24 in. level up to the 39 in. level (total height of charring: 15 inches).

Surface distortion and melting of the cable coating was from the 39 in. level up to the 70 in. level (total height of melt away/distortion: 31 inches).

Cable damage – front of cable tray

Damage to the cables resulted in severe surface charring from the 24 in. level up to the 68 in. level (total height of charring: 44 inches).

Surface distortion and melting of the cable coating was from the 68 in. level up to the 78 in. level (total height of melt away/distortion: 10 inches).

The intumescent cable coating identified as Metacaulk[®] Industrial Cable Coating, when spray applied to electrical power cables identified as Rome XLP Power Cable E-60379 (UL) MV-90 DRY 2 AWG CU 5KV nonshielded, has **passed** the IEEE-383 flame spread test by not allowing the flames to spread up and past the 8 ft extremity of the cable tray.

Date of Test: March 29, 1995
Test Material: Metacaulk[®] Industrial Cable Coating

Ambient temperature at start of test was 72°F and 37% relative humidity

TIME (min:sec)	TEST THREE OBSERVATIONS
00:00	start of test
00:17	discoloration of the cable coating
00:27	surface charring
01:00	spotty ignition
02:19	surface cracks in the cable coating
02:40	swelling of the cables at the burner location, light gray smoke
04:55	flames still at the 4 ft level, small pieces of char falling to floor
12:00	flames at the 4 ft level, with surface swelling and jacket distortion to the 5 ft level
15:00	no change
20:00	burner extinguished, flames continuing to burn from the 2 to the 3.5 ft level
25:20	burning on the front side of the cable tray has gone out, cables are still burning on the back side of the cable tray at the 3 ft level
28:25	all flaming ceased; end of test

Cable damage – back side burner

Damage to the cables resulted in severe surface charring from the 24 in. level up to the 39 in. level (total height of charring: 15 inches).

Surface distortion and melting of the cable coating was from the 39 in. level up to the 74 in. level (total height of melt away/distortion: 35 inches).

Cable damage – front of cable tray

Damage to the cables resulted in severe surface charring from the 24 in. level up to the 48 in. level (total height of charring: 24 inches).

Surface distortion and melting of the cable coating was from the 48 in. level up to the 64 in. level (total height of melt away/distortion: 16 inches).

The intumescent cable coating identified as Metacaulk[®] Industrial Cable Coating, when spray applied to electrical power cables identified as Rome XLP Power Cable E-60379 (UL) MV-90 DRY 2 AWG CU 5KV nonshielded, has **passed** the IEEE-383 flame spread test by not allowing the flames to spread up and past the 8 ft extremity of the cable tray.