

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0105886
Insp Area: 3

Site Address: 5919 36TH AV SAC
Parcel No: 027-0106-024

Sub-Type: RES
Housing (Y/N): N

CONTRACTOR
WESTERN FOAM INC
1465 BARRY RD
YUBA CITY CA 95993

OWNER
LEWIS RON
4305 43RD AVE
SACRAMENTO CA 95824

ARCHITECT

Nature of Work: REROOF OVERLAY WITH BUR

CONSTRUCTION LENDING AGENCY: I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name _____ Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class 35 License Number 440672 Date 5-9-01 Contractor Signature Robert F. Newton

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code, any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00).

_____, I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

_____, I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law)

_____, I am exempt under Sec. _____ B & PC for this reason: _____

Date _____ Owner Signature _____

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 5-9-01 Applicant Agent Signature Robert F. Newton

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

_____, I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier AMERICAN PROTECTION Policy Number 3BR00260500 Exp Date 02/01/2002

_____, (This section need not be completed if the permit is for \$100 or less) I, ~~certaining~~ **WARNING** the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 5-9-01 Applicant Signature Robert F. Newton

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.



ICBO Evaluation Service, Inc.

5360 WORKMAN MILL ROAD • WHITTIER, CALIFORNIA 90601-2299

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EVALUATION REPORT

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ER-3129

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Filing Category: ROOF COVERING AND ROOF DECK CONSTRUCTION—Roof Covering (202)

DIATHON AND ROOFMATE ROOFING SYSTEMS

UNITED COATINGS
EAST 19011 CATALDO
GREENACRES, WASHINGTON 99016

1.0 SUBJECT

Diathon and RoofMate Roofing Systems

2.0 DESCRIPTION

2.1 General:

The Diathon and RoofMate roofing systems consist of polyurethane foam plastic insulations noted in this report, sprayed over a prepared roof deck to the indicated thickness, density and roof slope. The foam insulation is protected by two coats of acrylic elastomer coating, applied as specified in this report. The systems have roof covering classifications as noted in Table 1 when they are installed as set forth in this report. The product has a shelf life of two years when stored at temperatures between 60°F and 90°F (15.6°C and 32.2°C). The Diathon and RoofMate systems are identical.

2.2 Preparation of Substrates:

2.2.1 General: The substrates to be covered shall be free of all grease, oil, loose particles, moisture, and other foreign materials. All parapet surfaces, valleys, etc., must be flashed and counterflashed as required by the code. Areas not receiving a foam insulation application must be masked off or otherwise protected from overspray.

2.2.2 Wood Substrates: Wood substrates must be Exposure 1 plywood complying with UBC Standard 23-2, at least 1/2 inch (12.7 mm) thick and bonded with exterior glue, and must be adequate for the required roof loading. All plywood edges must be supported by blocking or tongue-and-groove joints, as required in Section 2602.5.3 of the code. The plywood surface must be primed with a primer/sealer material that does not have a waxy or oily character.

2.2.3 Noncombustible Cementitious Substrates: Noncombustible cementitious substrates must be subjected to specialized treatment, such as wire brushing or commercial sandblasting, or must be chemically cleaned to ensure adequate bonding. The substrate must be primed to protect it and to increase bonding of the foam insulation and coating. Allowable types and required design loading of the substrates must comply with the code. See Table 1 for additional information.

2.2.4 Existing Built-up Roof Covering: The Diathon and RoofMate roof coating and insulation systems may be applied over existing built-up roof coverings, as described in Items 17 and 18 of Table 1, subject to inspection and written approval of the existing roof covering in accordance with Section 1515.1 of Appendix Chapter 15. The existing roofing must be

securely attached to the deck. Prior to application of the spray-applied polyurethane foam, the existing surface shall be prepared in accordance with Section 1516.2 of Appendix Chapter 15.

2.2.5 Insulated Steel Deck Roofing System: The roofing systems consist of steel decks to which foam insulation listed as Item 13 or 14 in Table 1 is applied. The foam insulation application is the same as that described in Section 2.3, except a coating of metal primer is applied to the deck at the rate of 1 gallon per 200 square feet (0.204 L/m²).

2.3 Foam Application:

The polyurethane foam insulation is applied to substrates that are prepared in accordance with Section 2.2. The surface temperature of the substrate must be above 60°F (15.6°C) at the time of foam insulation application. The foam shall not be applied when wind velocity exceeds 15 miles per hour (24 km/h), unless adequate wind barriers are provided. The foam insulation shall not be applied to wet or damp substrates, or when precipitation is expected prior to completion of the foaming operation.

The foam insulation components must have a temperature above 70°F (21.1°C) at the time of application. The normal color of the sprayed foam is tan. Improper proportions of foam components will result in foam with a very light or dark brown color. The spraying operation must be done so that enough material is placed to wet the surface, without running or sagging. The wetted surface must be allowed to foam completely before the second layer is applied; this requires 30 to 60 seconds. The foam is sprayed uniformly to a smooth, even surface, free of ridges, bumps or depressions. Work must proceed so that the desired thickness is achieved as soon as possible. Excessive thicknesses that are built up too fast in air temperatures above 95°F (35°C) or material temperatures above 120°F (49°C) may result in discoloration and weakening of the foam insulation and possible spontaneous combustion.

Refer to Table 1 for additional information.

2.4 Application of Coating:

The foam insulation surface must be dry and free of all degraded foam, dirt and foreign material before application of the coating. If the foam insulation is damaged to the point where cracks, voids or large depressions appear, additional foam insulation must be applied to create a satisfactory surface. After the foam insulation has developed sufficient strength to support foot traffic, but within 72 hours, the coating is spray-applied in two coats at the application rates noted in Table 1. The temperature of the coating must be maintained above 60°F (15.6°C). The ambient temperature must be 50°F (10°C) or above during coating application and 32°F (0°C) or above for the 24-hour period after application. The coating

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This report is based upon independent tests or other technical data submitted by the applicant. The ICBO Evaluation Service, Inc., technical staff has reviewed the test results and/or other data, but does not possess test facilities to make an independent verification. There is no warranty by ICBO Evaluation Service, Inc., express or implied, as to any "Finding" or other matter in the report or as to any product covered by the report. This disclaimer includes, but is not limited to, merchantability.

shall not be applied when dew, condensation or precipitation is expected. Refer to Table 1 and Figure 1 for additional information.

Roof areas that will be subject to foot or maintenance traffic must be protected from wear or damage by an approved means. An optional surface, with No. 6 crushed limestone at 64 pounds per 100 square feet (3.12 kg/m²) embedded into the top coating and covered with Young Builders Duraguard roof mix applied at 100 square feet (9.29 m²) per batch, may be used. One batch of the roof mix consists of 40 pounds (18.1 kg) of dry mix, 4 1/2 gallons (17 L) of water, 1/2 gallon (1.9 L) of Rohm and Haas MC-76 Acrylic Resin and 3/4 ounce (21.3 g) of Colloid 60.

2.5 Identification:

Each coating container bears a label with the United Coatings name and address, the product name (Diathon or RoofMate), the evaluation report number (ICBO ES ER-3129), the shelf life, and the date of manufacture; and bears the label of the quality control agency, Underwriters Laboratories Inc.

Burtin Corporation polyurethane foam plastic insulation is labeled in accordance with ICBO ES Evaluation Report ER-4589. Polythane Systems, Inc., PSI S200 polyurethane foam plastic insulation is labeled in accordance with ICBO ES Evaluation Report ER-4896. Other polyurethane foam plastic insulations noted in this report are labeled with the name and address of the manufacturer, the product name, the flame-spread characteristics and the name of the quality control agency [Underwriters Laboratories Inc., for all insulations except those produced by Stepan Company (Items 13, 14 and 15 of Table 1), for which the agency is Factory Mutual Research].

3.0 EVIDENCE SUBMITTED

Data in accordance with the ICBO ES Acceptance Criteria for

Membrane Roof-covering Systems (AC75), dated September 1997; reports of tests in accordance with UL 1256-85; descriptive literature; installation instructions; and a quality control manual.

4.0 FINDINGS

That the Diathon and RoofMate Roofing Systems described in this report comply with the 1997 *Uniform Building Code*[™], subject to the following conditions:

- 4.1 All material is applied by factory-trained personnel approved by United Coatings.
- 4.2 Materials and installation comply with this report and the manufacturer's instructions.
- 4.3 Where moderate or heavy foot traffic occur for maintenance of equipment, or is otherwise necessary, the roof covering shall be adequately protected to prevent rupture or wearing of the surface.
- 4.4 The roof-covering systems described in this report are limited to installation in areas subject to a maximum basic wind speed of 80 mph (129 km/h) on buildings a maximum of 40 feet (12 192 mm) in height, in Exposure C areas, except Items 1 and 6 of Table 1, which are limited to installation in areas subject to a maximum basic wind speed of 80 mph (129 km/h) on buildings a maximum of 40 feet (12 192 mm) in height, in Exposure B areas.
- 4.5 Roofing classification is as set forth in Table 1.
- 4.6 The products are manufactured in Greensacres, Washington, and Tempe, Arizona, under a quality control program with inspections by Underwriters Laboratories Inc. (NER-QA403).

This report is subject to re-examination in two years.

TABLE 1--DIATHON AND ROOFMATE ROOFING SYSTEMS¹

ITEM NO.	SUBSTRATE	FOAM INSULATION			MAXIMUM ROOF SLOPE (inches per foot)	MINERAL GRANULES REQUIRED ²	ROOF COATING QUANTITY ⁴ (gal. per 100 sq. ft.)	ROOFING CLASSIFICATION	
		Manufacturer	Designation	Density (pcf)					Thickness ³ (inches)
1	Cementitious deck only	Burtin Corporation	BUC 124-2.7	3.0	2 (max.)	1	None	Base - 1 3/4 Top - 1 1/2	A
2	Minimum 1/2-inch-thick plywood deck	Foam Enterprises, Inc.	FE800A/302B	2.5	3	1/2	45 lbs. per 100 sq. ft.	Base - 1 to 2 Top - 1 to 2	B
3	Cementitious deck only	Foam Enterprises, Inc.	FE303	2.7	1	2	None	Base - 1 3/4 Top - 1 1/2	A
4	Cementitious deck only	North Carolina Foam Industries, Inc.	NCFI 591	2.7	1	1/2	None	Base - 1 1/2 Top - 1 1/2	A
5	Cementitious deck only	Polythane Systems, Inc.	PSI WS-200	2.7	2	1/2	None	Base - 1 1/2 Top - 1 1/2	A
6	Minimum 1/2-inch-thick plywood deck	Polythane Systems, Inc.	PSI S200-25/30	2.5 or 3.0	3	1/2	45 lbs. per 100 sq. ft.	Base - 1 to 2 Top - 1 to 2	B
7	Cementitious deck only	Flexible Products Co.	241	2.5	2 (max.)	2	30 lbs. per 100 sq. ft.	Base - 1 1/2 Top - 1 1/2	A
8	Cementitious deck only	Flexible Products Co.	241	2.5	2 (max.)	1/2	None	Base - 1 3/4 Top - 1 3/4	A
9	Cementitious deck only	Flexible Products Co.	241	2.5	2 (max.)	3	60 lbs. per 100 sq. ft.	Base - 1 3/4 Top - 1 3/4	A
10	Minimum 1/2-inch-thick plywood deck ⁵	Flexible Products Co.	241	2.5	1 (min.) 2 (max.)	1/2	Basecoat - 60 lbs. per 100 sq. ft. Topcoat - 210 lbs. gravel per 100 sq. ft.	Base - 1 1/2 Top - 1 1/2	A
11	Minimum 1/2-inch-thick plywood deck ⁵	Flexible Products Co.	241	2.5	1 (min.) 2 (max.)	1/4	35 lbs. per 100 sq. ft.	Base - 1 1/4 Top - 1 1/4	B
12	Minimum 1/2-inch-thick plywood deck ⁵	Flexible Products Co.	241	2.5	1 (min.) 2 (max.)	1/2	35 lbs. per 100 sq. ft. (optional)	Base - 1 3/4 Top - 1 3/4	B
13	Cementitious and steel decks only	Stepan Company	RS 9300 or RS 9500 Series	2.5 or 3.0	2	3 1/2	45 lbs. per 100 sq. ft.	Base - 1 to 2 Top - 1 to 2	B
14	Cementitious and steel decks only	Stepan Company	RS 9300 or RS 9500 Series	2.5 or 3.0	2	1	None	Base - 1 1/2 Top - 1 1/2	A
15	Minimum 1/2-inch-thick plywood deck	Stepan Company	RS 9300 or RS 9500 Series	2.5 or 3.0	2	1 1/2	45 lbs. per 100 sq. ft.	Base - 1 1/2 Top - 1 1/2	A
16	Cementitious deck only	Hess Polyurethanes, Inc.	HPS-5100	2.75	4 (max.)	1	None	Base - 1 1/2 Top - 1 1/2	A
17	Four-ply (Class A or B) BUR over a cementitious deck	Hess Polyurethanes, Inc.	HPS-5100	2.75	1 (min.) 4 (max.)	3	40 lbs. per 100 sq. ft.	Base - 1 1/2 Top - 1 1/2	B
18	Three-ply (Class B or C) BUR over minimum 1/2-inch-thick plywood deck	Hess Polyurethanes, Inc.	HPS-5100	2.75	1 (min.) 4 (max.)	2	40 lbs. per 100 sq. ft.	Base - 1 1/2 Top - 1 1/2	B
19	Minimum 1/2-inch-thick plywood deck ⁶	Hess Polyurethanes, Inc.	HPS 5100	2.75	1 (min.) 4 (max.)	1/2	30 lbs. per 100 sq. ft.	Base - 1 1/2 Top - 1 1/2	B

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 lb. = 0.45 kg, 1 pcf = 16.018 kg/m³, 1 gal. = 3.785 L, 1 square foot = 0.09 m², 1 gallon per 100 square feet = 0.41 L/m², 1 mil = 0.0254 mm.

¹Refer to Sections 2.2 and 2.3 of this report for foam application.

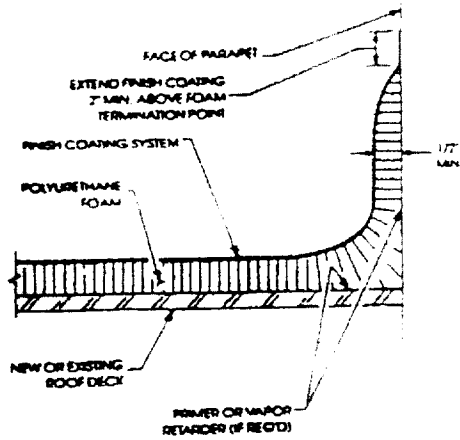
²The specified foam thickness is nominal and must be within $\pm 1/4$ inch of the designated thickness.

³No. 11 mineral granules are to be embedded in the wet top coat.

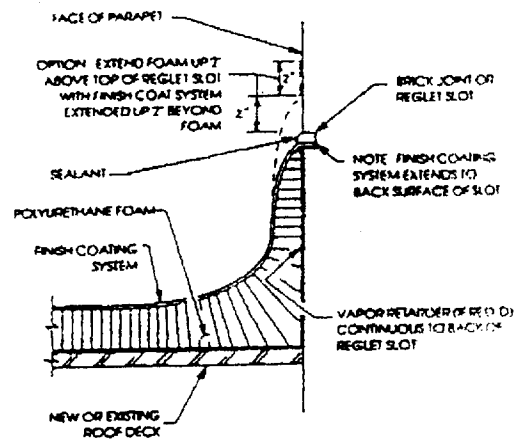
⁴Diathon or RoofMate coating is to be spray-applied in two coats, at the indicated rates. The first rate is for the base coat and the second rate is for the top coat. A coating application of 1 gal./100 sq. ft. results in a dry coating thickness of approximately 8 mils.

⁵Two-inch-wide, 2-mil aluminum must be centered over plywood joints.

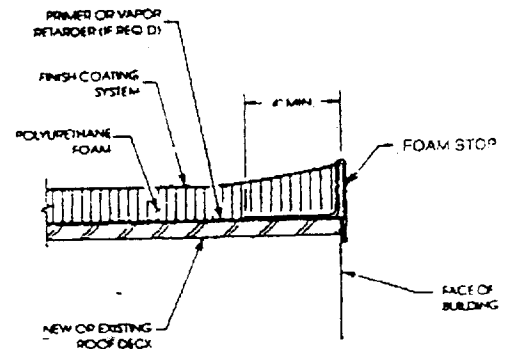
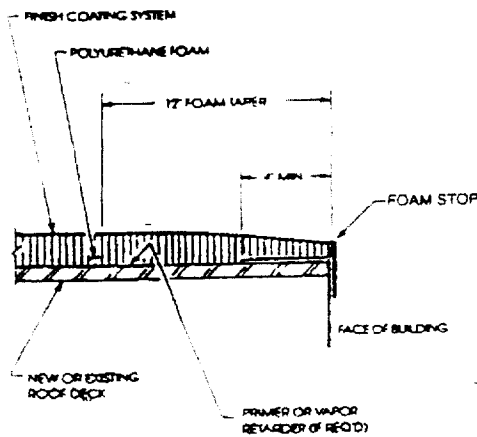
⁶Twelve-inch-wide cap sheet must be centered over plywood joints.



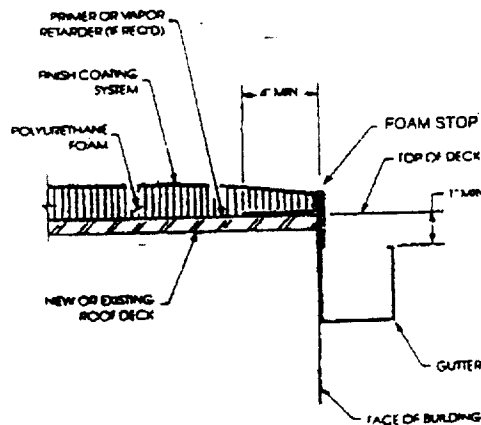
Self Flashing at Parapet Wall



Flashing at Parapet



Foamstop Detail



Gutter Detail

FIGURE 1—INSTALLATION DETAILS