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Legacy report on the 1991 Uniform Building Code™

DIVISION: 07—THERMAL AND MOISTURE PROTECTION
Section: 07570—Coated Foam Roofing

PSI S200 SPRAYED POLYURETHANE FOAM PLASTIC ROOF COVERING SYSTEMS

POLYTHANE SYSTEMS, INC.
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SPRING, TEXAS 77383-1452

1.0 SUBJECT

PSI S200 Sprayed Polyurethane Foam Plastic Roof Covering Systems.

2.0 DESCRIPTION

2.1 General:

Polythane Systems, Inc. PSI S200 is a spray-applied foam plastic insulation applied to roof decks and covered with a roof coating. The insulation is delivered as a two-component liquid polyurethane. The urethane is available in PSI S200-25 and PSI S200-30 designations, having in-place densities of 2.5 and 3.0 pcf, respectively. Both urethanes at a 2-inch maximum thickness have a flame spread less than 75 and a smoke-developed rating exceeding 450. The liquid insulation components have a six-month shelf life when stored at a temperature of 50°F to 80°F.

Roof covering systems are described in Table No. I.

2.2 Application:

The building official may require installation of a vapor barrier. All substrates must be clean and free of moisture, oil, grease, silicone, loose dirt, dust and debris. The polyurethane foam plastic is applied by simultaneous spraying of the two components in a 50/50 ratio by volume in layers 1/2 inch thick. Layers are cured for at least 3 minutes before application of subsequent layers. Urethane application is prohibited when moisture is present or anticipated. The ambient temperature during application must be a minimum of 40°F. Wind velocities at time of application cannot exceed 20 miles per hour. Adequate wind barriers are needed when wind velocities exceed 10 miles per hour. For flashing details, see Figure No. 1. Roof coatings are applied in accordance with the coating manufacturer's instructions and its evaluation

report as noted in Table No. I. At least a 30-minute curing period is required for the urethane prior to application of the coating.

2.3 Identification:

Containers of insulation components are identified by labels bearing the company name, product designation, component designation, evaluation report number, and the name of the quality control agency, Underwriters Laboratories Inc. (NERQA-403). Roof coatings are labeled in accordance with their respective evaluation report.

3.0 EVIDENCE SUBMITTED

Reports of test conducted in accordance with U.B.C. Standards Nos. 32-7 and 42-1, descriptive information and a quality control manual.

4.0 FINDINGS

That the PSI S200 Sprayed Polyurethane Foam Plastic Roof Covering systems described in this report comply with the 1991 Uniform Building Code™, subject to the following conditions:

- 4.1 The roof covering system is installed by applicators approved by Polythane Systems, Inc.
4.2 The roof covering system is applied in accordance with this report and the manufacturer's instructions.
4.3 Where moderate or heavy foot traffic occurs, as for maintenance of equipment, the roof system must be adequately protected to prevent rupture or wearing of surface.
4.4 Installation is limited to areas having a maximum basic wind speed of 80 mph, Exposure B, on roofs not exceeding 40 feet above grade.
4.5 All foam plastic components are produced at a company plant located in Spring, Texas, with quality assurance inspections by Underwriters Laboratories Inc. (NERQA-403).

1992 Supplement to the U.B.C.: This report is unaffected by the supplement.

This report is subject to re-examination in one year.

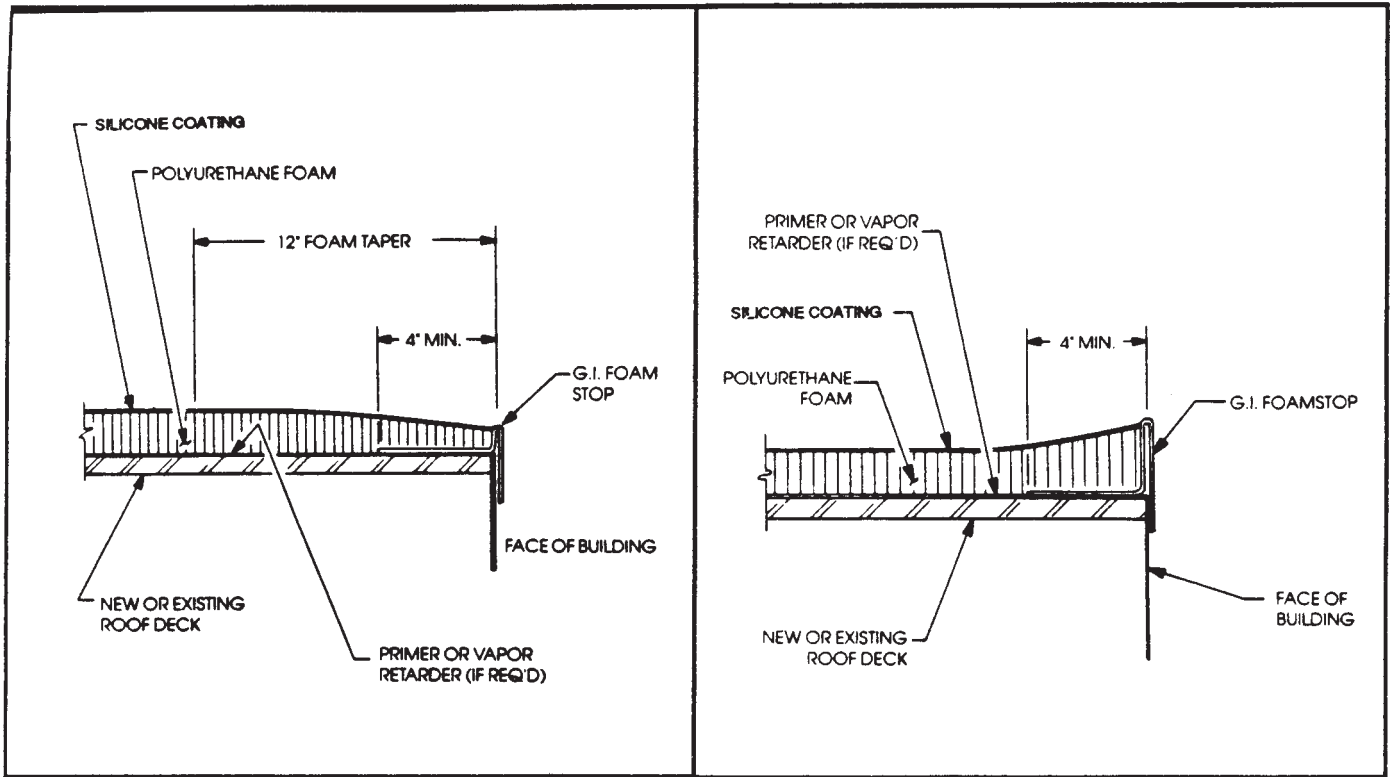
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TABLE NO. I—ROOF COVERING SYSTEMS

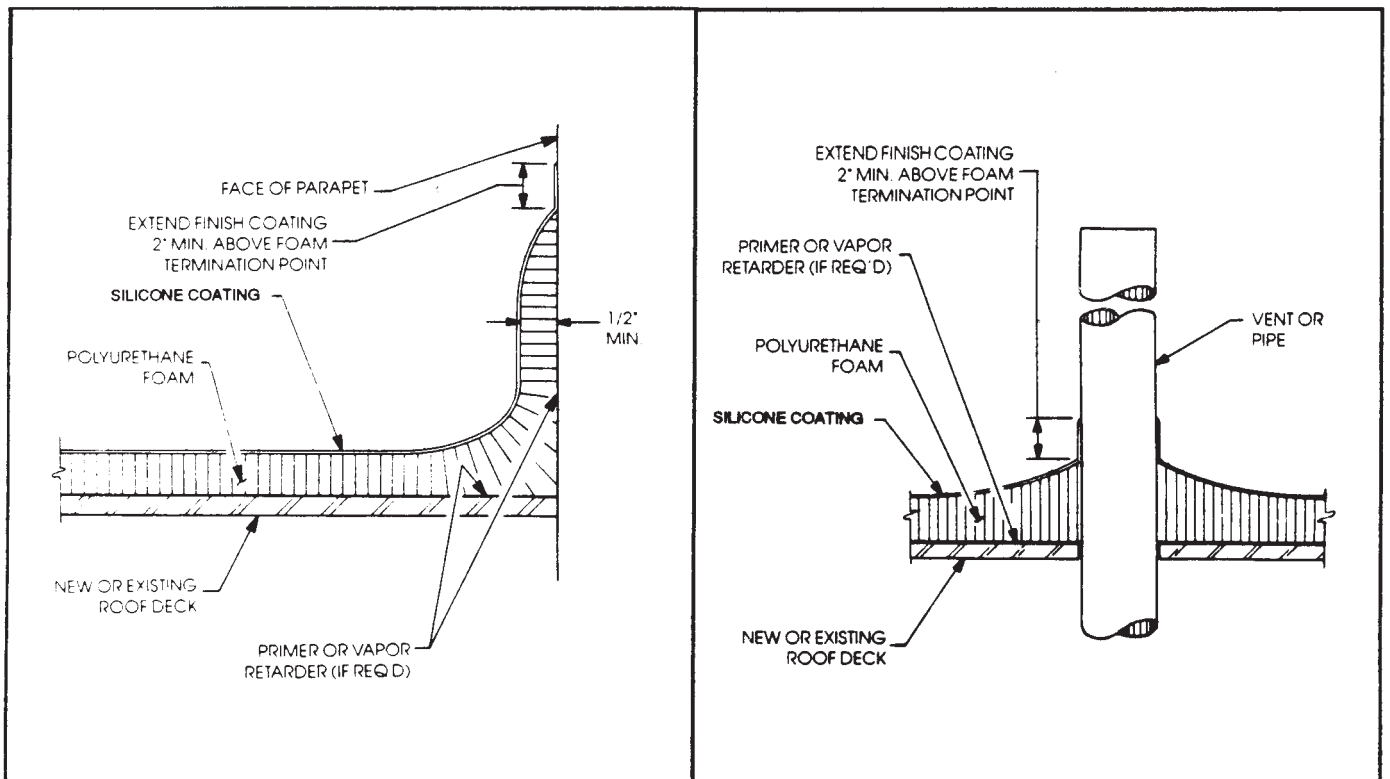
SYSTEM NO.	ROOF DECK TYPE	FOAM PLASTIC			ROOF COATING					MAXIMUM ROOF SLOPE	FIRE CLASSIFICATION
		Product Designation	Maximum Thickness (inches)	Density (pcf)	Manufacturer Name/ Evaluation Report Number	Product Designation	Application Rate (gals/100 sq.ft.)	Dry Film Thickness (mils min.)	Remarks		
1	Concrete	PSI S200-25 or PSI S200-30	2	2.5 or 3.0	Dow Corning Corp. ER-3735	3-5000 3-5000	1 1	9 9	Bottom Coat Top Coat	2:12	A
2	Concrete	PSI S200-25 or PSI S200-30	2	2.5 or 3.0	Gaco Western Inc. ER-3133	U-66 U-66	1 1	12 12	Bottom Coat Top Coat	1:12	A
3	Concrete or Plywood ¹	PSI S200-25 or PSI S200-30	1	2.5 or 3.0	Dow Corning Corp. ER-3735	3-5000 3-5000	1 1	9 9	Bottom Coat Top Coat	1:12	B
4	Concrete or Plywood ¹	PSI S200-25 or PSI S200-30	2	2.5 or 3.0	Dow Corning Corp. ER-3735	3-5000 3-5000	1 1	9 9	Bottom Coat Top Coat	2:12	B

¹Plywood shall be minimum 1/2-inch-thick plywood sheathing bonded with exterior glue. Plywood shall be installed in accordance with Section 1713 (e) 3 of the code.



Foam Stop Detail

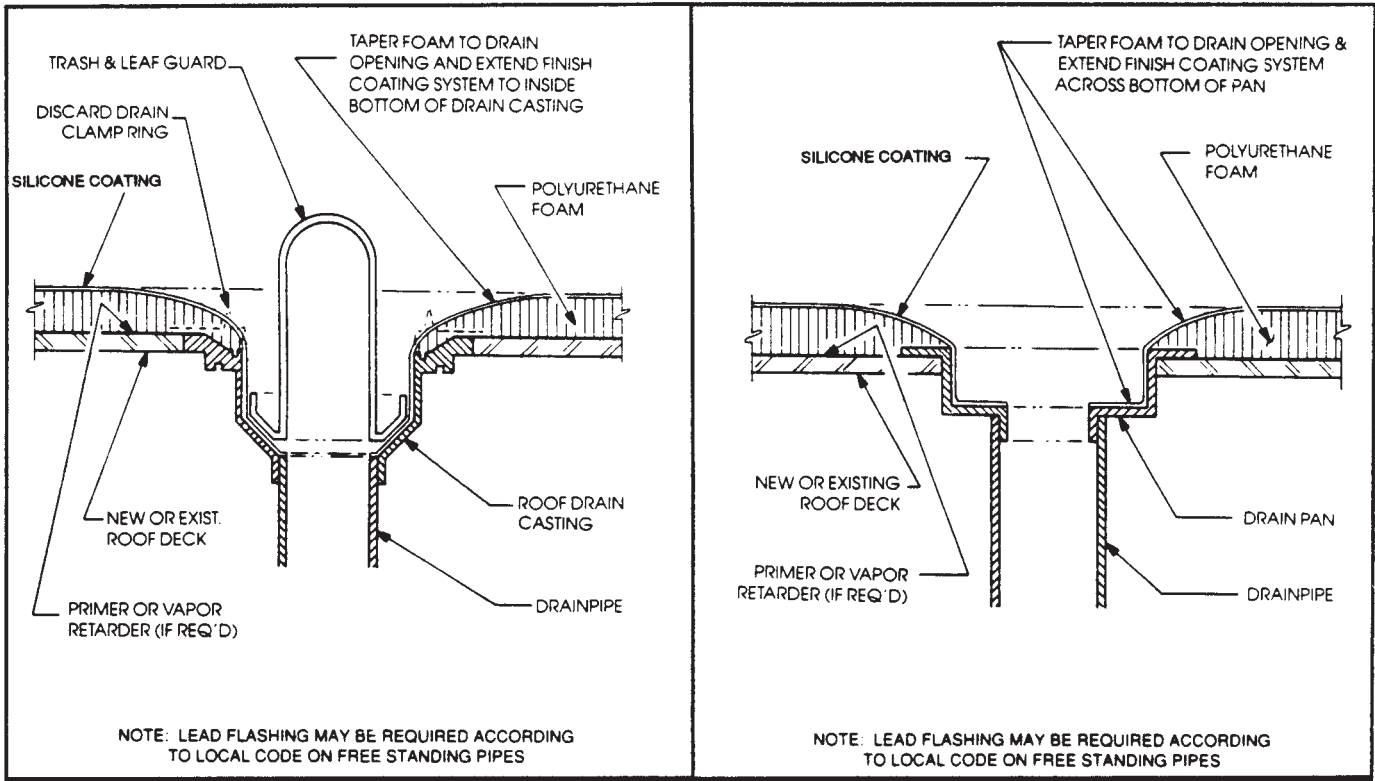
Foam Stop Detail - Raised Edge



Self Flashing At Parapet Wall

Self Flashing Pipe Vent Detail

FIGURE NO. 1—TYPICAL FLASHING DETAILS



Typical Roof Drain

Pan Type Roof Drain

FIGURE NO. 1—TYPICAL FLASHING DETAILS—(Continued)