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#### DEPARTMENT OF COMMERCE

BUREAU OF STANDARDS George K. Burgess, Director

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# **UNITED STATES GOVERNMENT MASTER SPECIFICATION FOR** THE INSTALLATION OF PLASTIC FLASHINGS WITH BUILT-**UP BITUMINOUS ROOFING**

# FEDERAL SPECIFICATIONS BOARD, SPECIFICATION No. 157

This specification was officially adopted by the Federal Specifications Board on June 1, 1924, for the use of the Departments and Independent Establishments of the Government in the installation of plastic flashings with built-up bituminous roofing.

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#### I. TYPE

This specification covers the installation of plastic base flashings with or without appropriate cap or counterflashings in connection with built-up bituminous roofing in the angles formed where the roof surface abuts walls and similar vertical surfaces and where required to make the roof covering water-tight. They shall be installed by the roofing contractor or he shall at least be responsible for their proper installation.

#### **II. MATERIAL AND WORKMANSHIP**

Plastic flashings shall be composed of either asphalt-saturated felt or coal-tar saturated rag felt, respectively, cemented together with asphalt plastic roofing cement or coal-tar plastic roofing cement. 105259\*-24\*

# **III. GENERAL REQUIREMENTS**

The flashings shall be installed before the gravel, slag, or other surfacing material or the top coating of asphalt or coal-tar pitch is applied to the roofing.

Parapet walls of concrete shall be constructed in such a manner so as to provide for a flashing groove or reglet one-half inch wide and not less than  $1\frac{1}{2}$  inches deep. The groove or reglet shall be at right angles to the walls except where a 45° cant is used, when it should be set or cut in the wall at that angle.

Brick parapet walls shall be provided with a groove one-fourth inch to three-eighths inch wide and not less than  $1\frac{1}{2}$  inches deep either by the installation of a wooden strip between the courses of brick at the proper height, which can later be removed, or by raking out the mortar.

The line on which the cap or counterflashings are installed shall be not more than 10 inches nor less than 6 inches above the roof level. Step flashings shall be used where vertical surfaces abut sloped roof surfaces.

Cant strips or fillings are recommended and shall be used wherever practicable for all flashings. They shall be at least 5 inches high, unless otherwise indicated and shall be laid at an angle of 45° from the vertical.

#### IV. DETAIL REQUIREMENTS

1. Three layers of asphalt-saturated felt, in the case of asphalt roofing or of coal-tar saturated rag felt, in the case of coal-tar pitch roofing, shall be set in the angle. They shall be cemented together and to underlying surfaces with either asphalt plastic roofing cement or coal-tar plastic roofing cement, respectively. If the reglet is set at an angle of  $45^{\circ}$  and opens out directly on the cant strip, these layers of felt should be extended up into the reglet to its full depth. If the reglet is at right angles to the vertical surface, these layers of felt should extend only up to it.

These layers of felt shall extend out over the roofing and lap as follows: The first layer of felt shall extend out over the roofing at least 6 inches, the second layer shall lap the first approximately 5 inches, and the third layer shall lap the second approximately 4 inches.

2. Over the last layer of felt a one-sixteenth to one-eighth-inch coating of plastic roofing cement shall be applied by means of a trowel.

3. The counterflashing shall then be installed. It shall consist of metal bent into proper shape or a combination of metal and a strip of 50-pound prepared roofing. The metal portion of the latter shall be bent flat on itself along its upper edge so as to form a groove or lap  $1\frac{1}{4}$  inches wide into which the prepared roofing shall be securely fastened.

In installing metal counterflashing the metal strip shall be bent so as to fit in the reglet or flashing groove to a depth of  $1\frac{1}{2}$  inches and shall extend down over the base flashing at least 3 inches.

In installing a metal and prepared roofing combination counterflashing, the lapped portion in which the sheet of prepared roofing is held shall be inserted into the reglets or flashing grooves, the back of the prepared roofing strip shall be coated with plastic roofing cement, and the projecting metal and prepared roofing shall be turned down over the base flashing at least 3 inches. The exposed face of the counterflashing, including the metal part, shall be coated uniformly with plastic roofing cement.

4. Strips for counterflashing shall not exceed 10 feet in length and the end joints shall be lapped not less than 3 inches and sealed with plastic roofing cement. The reglets or flashing grooves shall also be pointed up with plastic roofing cement.

#### V. INSPECTION

No details.

VI. PACKING AND MARKING

No details.

# VII. ADDITIONAL INFORMATION

No details.

# VIII. GENERAL SPECIFICATIONS

No details.

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