

# **DURO-LAST® PLENUM VENT**

### **DESCRIPTION:**

Duro-Last<sup>®</sup> Plenum Vents are fabricated from a rigid exterior vinyl and have a 6-inch skirt made from Duro-Last's proprietary thermoplastic roofing membrane.

The Plenum Vent incorporates a vent screen to allow passive air exchange between unconditioned attic space and the outside atmosphere. A large vent cap is secured over the vent screen to protect against water infiltration.

Plenum Vents are available in white, tan and dark gray colors.

#### **ORDERING:**

The Plenum Vent can be ordered individually or in cases of 10.

#### STORAGE AND HANDLING:

Keep product clean and dry until ready to install.

#### PRECAUTIONS:

- Read Safety Data Sheets (SDS) prior to using.
- Wear proper personal protective equipment, such as gloves and eye protection, per the SDS.

#### **INSTALLATION:**

- 1. Limitations
  - a. Use only for passive venting of unconditioned attic space.
  - b. Do <u>not</u> use to ventilate the Duro-Last Roofing System.
- 2. Cut a hole through the deck assembly no larger than 10-1/4 inches.
- Backseal underneath the Duro-Last deck membrane, around the hole, with an approved sealant.
- Center the Plenum Vent above the hole, pull back the membrane skirt and fasten into the deck, through the sealant, at all of the predrilled hole locations.
- Weld the membrane skirt to the deck membrane using a hot-air welder to achieve a minimum weld width of 1-1/2 inches.



- 6. Locate the 2 raised marks on the sides of the vent base. Predrill 3/16-inch holes and fasten 4-inch #14 screws (not included) through the sides of the vent cap and vent base directly above each raised mark. The holes should be located 2 inches up from the bottom of the vent cap.
- 7. Refer to Detail Drawing 5025 for more installation information.

## INTERNATIONAL BUILDING CODE (IBC) REQUIREMENTS

## IBC R806.2 Minimum vent area

The minimum net free ventilating area shall be 1/150<sup>th</sup> of the area of the vented space.

**Exception**: The minimum net free ventilation area shall be 1/300<sup>th</sup> of the vented space provided one or more of the following conditions are met:

- 1. In Climate Zones 6, 7 and 8, a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.
- 2. At least 40 percent and not more than 50 percent of the required ventilating area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located no more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically, with the balance of the required ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet (914 mm) below the ridge or highest point of the space shall be permitted.

## **CALCULATIONS**

To determine the amount of attic area covered per vent, multiply the net free area (54 sq. in.) by either 150 or 300 sq. ft. (refer to *IBC REQUIREMENTS* on page 1) and then divide by 144 sq. in.

To determine the quantity of required vents, divide the unconditioned attic space by the attic area per vent. Round up to the next whole number for any fractional amounts. Note: It is the responsibility of the installing contractor of record to ensure that all applicable specifications, building codes, regulations and ordinances are complied with and followed.

	VENTILATION REQUIREMENTS <u>WITHOUT</u> A VAPOR RETARDER (144 SQ. IN. NET FREE AREA PER 150 SQ. FT.)									
Attic Area	Plenum Vent Net Free Area	Unconditioned Attic Area per Vent without Eave Vents	Number of Plenum Vents Required	Plenum Vent Net Free Area	Unconditioned Attic Area per Vent with Eave Vents	Number of Plenum Vents Required				
Sq. Ft.	Sq. In.	Sq. Ft.	Each	Sq. In.	Sq. Ft.	Each				
100	54	56.25	2	54	112.50	1				
200	54	56.25	4	54	112.50	2				
300	54	56.25	6	54	112.50	3				
400	54	56.25	8	54	112.50	4				
500	54	56.25	9	54	112.50	5				
600	54	56.25	11	54	112.50	6				
700	54	56.25	13	54	112.50	7				
800	54	56.25	15	54	112.50	8				
900	54	56.25	16	54	112.50	8				
1,000	54	56.25	18	54	112.50	9				
1,100	54	56.25	20	54	112.50	10				
1,200	54	56.25	22	54	112.50	11				
1,300	54	56.25	24	54	112.50	12				
1,400	54	56.25	25	54	112.50	13				
1,500	54	56.25	27	54	112.50	14				

VENTILATION REQUIREMENTS <u>WITH</u> A VAPOR RETARDER (144 SQ. IN. NET FREE AREA PER 300 SQ. FT.)										
Attic Area	Plenum Vent Net Free Area	Unconditioned Attic Area per Vent without Eave Vents	Number of Plenum Vents Required	Plenum Vent Net Free Area	Unconditioned Attic Area per Vent with Eave Vents	Number of Plenum Vents Required				
Sq. Ft.	Sq. In.	Sq. Ft.	Each	Sq. In.	Sq. Ft.	Each				
100	54	112.50	1	54	112.50	1				
200	54	112.50	2	54	112.50	2				
300	54	112.50	3	54	112.50	3				
400	54	112.50	4	54	112.50	4				
500	54	112.50	5	54	112.50	5				
600	54	112.50	6	54	112.50	6				
700	54	112.50	7	54	112.50	7				
800	54	112.50	8	54	112.50	8				
900	54	112.50	8	54	112.50	8				
1,000	54	112.50	9	54	112.50	9				
1,100	54	112.50	10	54	112.50	10				
1,200	54	112.50	11	54	112.50	11				
1,300	54	112.50	12	54	112.50	12				
1,400	54	112.50	13	54	112.50	13				
1,500	54	112.50	14	54	112.50	14				