

# EMS Preformed Compression Seals PV-Series Configuration (Neoprene Pavement Seals with lube adhesive)



## Description

This product is an extruded elastomeric configuration that, when inserted into a contraction or expansion joint in a substrate, will seal the opening from the intrusion of water and debris. The cross-section has an arrangement of internal webs precisely located to exert a continuous and uniform horizontal force against the joint walls. It is designed to exist in various constant degrees of compression throughout the range of joint movement – a circumstance caused by thermal or other stimuli.

The PV-Series shapes are specifically designed for architectural, airport, and mall applications where maximum attention must be given to maintain a smooth walking surface. The seals provide a nearly constant level during cyclic action.

The seal's web design was specifically structured to present lower stresses than comparably sized, heavy-duty models. This makes the configuration ideal for not only concourse applications in building floors and parking decks, but also for vertical installations in wall constructions.

## Features and Benefits

- ❑ Easy to use.
- ❑ Low-stress design ideal for concourse, floor, parking deck, and wall applications.
- ❑ Available in neoprene meeting ASTM D 2628.
- ❑ Smooth walking surface.
- ❑ Sizes to accommodate movements up to 1-1/4".
- ❑ Outperforms field-molded sealants.

## Physical Properties

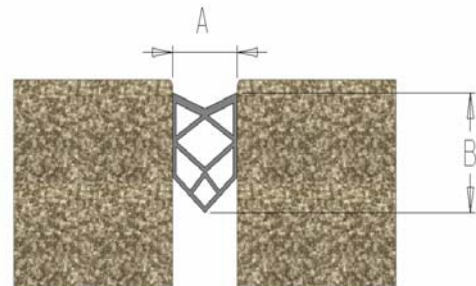
The system consists of two items: a compression seal and a lubricant-adhesive.

The compression seal is available in several designs of varying graduated widths. It is made from neoprene. The neoprene seal is black in color and meets the requirements of ASTM D 2628 & AASHTO M-220 standard specifications. See Table 1 on the back of this sheet.

The lubricant-adhesive is a one-part moisture-curing polyurethane and aromatic hydrocarbon solvent mixture. It conforms to properties presented in ASTM D4070 and shown in Table 2.



### PV-Series Profile



**Figures 1 & 2- The PV-series is appropriate for use in architectural applications where care must be taken to provide pedestrians with a smooth walking surface, as provided for by the seal's low-stress, webbed design. Possible applications include shopping malls, airport concourses, parking decks, floors, and walls.**

Product	Min. Width IN (MM)	Mid-Range IN (MM)	Max. Width IN (MM)	Total Movement IN (MM)	Dim. A: IN (MM)	Dim. B: IN (MM)
PV-437	0.19" (4.8)	0.28" (7.1)	0.37" (9.4)	0.18" (4.6)	0.44" (11.2)	0.94" (23.9)
PV-562	0.25" (6.4)	0.34" (8.6)	0.48" (12.2)	0.18" (4.6)	0.56" (14.2)	0.63" (16.0)
PV-686	0.33" (8.4)	0.45" (11.4)	0.58" (14.7)	0.26" (6.6)	0.69" (17.5)	0.69" (17.5)
PV-816	0.35" (8.9)	0.52" (13.2)	0.70" (17.8)	0.35" (8.9)	0.81" (20.6)	0.94" (23.9)
PV-1006	0.40" (10.2)	0.63" (16.0)	0.85" (21.6)	0.45" (11.4)	1.00" (25.4)	1.00" (25.4)
PV-1256	0.45" (11.4)	0.76" (19.3)	1.06" (26.9)	0.61" (15.5)	1.25" (31.8)	1.00" (25.4)
PV-1625	0.60" (15.2)	0.99" (25.1)	1.38" (35.1)	0.78" (19.8)	1.63" (41.4)	1.13" (28.7)
PV-2000	0.75" (19.0)	1.23" (31.2)	1.70" (43.2)	0.95" (24.1)	2.00" (50.8)	1.50" (38.1)
PV-2500	0.78" (19.8)	1.33" (33.8)	2.13" (54.1)	1.10" (27.9)	2.50" (63.5)	2.50" (63.5)
PV-3000	1.20" (30.5)	1.83" (46.5)	2.55" (64.8)	1.26" (32.0)	3.00" (76.2)	2.50" (63.5)

## PRODUCT SIZING AND REFERENCE CHART

TABLE 1 – Physical Properties of Neoprene Seal Element (Black)		
Property	ASTM Test Method	Requirement
Tensile strength, min.	D412	2000 psi
Elongation at break, min.	D412	250%
Hardness, Type A durometer	D2240	55 +/-5
Oven aging, 70h @ 212° F	D573	
Tensile strength, max.		20% loss
Elongation, max.		20% loss
Hardness, Type A duro.		0 to +10 pts
Oil swell, ASTM Oil No. 3 70h @ 212 ° F		
Weight change, max.	D471	45%
Ozone resistance, 20% strain 70 hours aging, D573, 3 ppm in air	D1149	No cracks

TABLE 2 – Physical Properties of Lubricant-Adhesive		
Property	Test Method Section	Requirement
Solids Content, min %	10.1	60
Homogeneity		Shall be uniform, no lumps Or agglomerates, no Settlement in container
Shear Ratio at:		
Min:		
At 20,000 to 100,000	cP	1.5
At 100,001 to 200,000	cP	2.0
At 200,001 to 300,000	cP	2.5
Max		4.0
Lubricating life, min. h	10.3	2
Sag	10.4	No sagging
Peel strength test	10.5	Max. length peeled from Concrete within 3 min.
500-g load		None
1000-g load		12mm (1/2 in.)
Shelf life	11.1	For 6 months after manufacture, no skinning over and settling in the container to the extent that it cannot be brought to a smooth uniform product by stirring

## Delivery and Storage

The compression seal is delivered to the jobsite in continuous lengths, and is rolled up on pallets. The lubricant-adhesive is packaged in one-gallon cans.

Until use, all components should be left in their original, unopened containers and stored indoors. When properly stored, the lubricant-adhesive has a shelf life of six months.

## Installation

- Construct the open joint to a width corresponding to the ambient temperature. The depth should be per the manufacturer's recommendations.
- Clean the joint surfaces by sandblasting.
- Apply the lubricant-adhesive to the joint interfaces.
- Clean the seal with an approved solvent. Install the seal in the prepared joint. Position it to a constant depth.
- Clean any excess lubricant-adhesive from the concrete or steel and/or seal, using an approved solvent.

## Limitations

The seal's waterproofing capabilities are dependent on the internal forces generated while the seal is under compression. For this reason, it is vitally important that proper seal sizing be adhered to, with reference to the constructed joint opening, temperature range and design movement. The seal will not function on a long-term basis as intended once the joint opening exceeds 85% of the nominal width of the seal.

Note: Erratic formation of the joint and/or improper installation of the seal can cause premature failure of the system.

**For additional information, contact**

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