



# Ply-Seal® NV

## Technical Bulletin

Ply-Seal® NV is a pre-formed, low-density, closed cell, cross-linked, polyethylene material with EVA for added memory and consistency during expansion and compression. Ply-Seal® NV is used as a flexible joint seal that is waterproof and chemical resistant. The product is an ideal joint seal for bridges, car parks, waste water treatment plants, precast members, and many other structures where a waterproof joint seal is required. Ply-Seal® NV is compatible with construction materials and resistant to abrasion, oxidation, oils, gasoline, salt, and other materials that may come in contact with the surface. Conforms to ASTM D1056, 2B1 & 2.

### Key Features

- Handles 25% tension and 50% compression
- Weather and UV resistance - UV inhibitor added
- Monolithic waterproof system
- Intersections and splices may be field-welded
- Quick and efficient field installations
- Solvent and chemical resistance
- Not affected by extreme cold
- Available in most sizes and shapes

### Enhanced Bond Line Design

Polyset manufactures the Ply-Seal® NV with grooves along the bond surface running the length of the joint. The grooves are approximately 1/8" wide by 1/8" deep and spaced between ¼ and ½ inch apart. Splicing of the seal is performed using the heat-welding method.

### Uses

The product is an ideal expansion joint seal for bridges, car parks, tunnels, waste water treatment plants, and interior/exterior commercial structures where a waterproof joint seal is required. Ply-Seal® NV may also be used in sound barrier joints.

### Installation

Ply-Seal® NV is installed with Ply-Bonder, a 2-part epoxy, applied on both sides of the substrate and both sides of the Ply-Seal® NV. The seal is installed under compression (see design chart). Please refer to Joint Seal Installation Instructions for proper installation procedures.

**Recommended Adhesives:** Ply-Bonder

**Packaging:** Fabricated per project requirements

**Shelf Life:** Unlimited

**Storage:** Maximum storage temperature: 105°F

### Physical Data

Property	Value	ASTM D3575
Density (Nominal)	2.75—3.1 pcf	Suffix W
Compressive Strength	>5 psi @ 25% >14 psi @ 50%	Suffix D
Elongation	230% Min	Suffix T
Tensile Strength	60 psi Min	Suffix T
Tear Strength	12 pli Min	Suffix G
Water Absorption	< 0.03 lb/ft <sup>2</sup>	Suffix L
	3% Vol/Vol Max	ASTM D545
Compression Set @ 50% for 22 Hrs.	20% Max	ASTM D1056 Suffix B
Extrusion (with 3 Sides Restrained)	< 0.25" @ 50% compression	ASTM D545

### Ply-Seal® NV Joint Material Design Chart

Model Number	Jt. Gap (in.) @ 60°F	Rec.* Seal Size (w x d)	Movement Range (in.)
#1.38	1	1 3/8 x 2	0.7—1.7
#1.63	1 1/4	1 5/8 x 2	0.8—2.0
#2.00	1 1/2	2 x 2	1.0—2.5
#2.38	1 3/4	2 3/8 x 2	1.2—3.0
#2.75	2	2 3/4 x 2	1.4—3.4
#3.00	2 1/4	3 x 2 1/2	1.5—3.8
#3.25	2 1/2	3 1/4 x 2 1/2	1.6—4.1
#3.50	2 3/4	3 1/2 x 2 1/2	1.8—4.4
#4.00	3	4 x 3	2.0—5.0
#4.50	3 1/2	4 1/2 x 3	2.3—5.6
#5.00	4	5 x 3 1/2	3.0—6.3

Limited Warranty: Polyset Company Inc. makes no warranty, expressed or implied, including any warranty of merchantability of fitness for a particular purpose. The sole remedy of Purchaser for any claim concerning this product, including, but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the discretion of Polyset Company Inc. Any claims concerning this product shall be submitted in writing within one year of the delivery date of this product to Purchaser and any claims not presented within that period are waived by Purchaser. IN NO EVENT SHALL POLYSET COMPANY INC. BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDES LOSS OF PROFITS) OR PUNITIVE DAMAGES. Copyright © 2023 Polyset Company, Inc. All rights reserved. Revised 8/16/2023