

EXPANSION JOINT FILLER**729.1 PREMOLDED JOINT FILLER:**

Expansion joint filler materials shall consist of preformed strips of a durable resilient compound and comply with one of the following as specified by the Contracting Agency or as approved by the Engineer:

- a) ASTM D1751 - Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)
- b) ASTM D8139 - Semi-Rigid, Closed-Cell Polypropylene Foam, Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction
- c) ASTM D1752 - Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction
- d) ASTM D2628 - Preformed Polychloroprene Elastomeric Joint Seals for Concrete Pavements.

729.2 POUR TYPE JOINT FILLERS FOR PORTLAND CEMENT CONCRETE PAVING (PCCP):

Pour type joint fillers shall comply with ASTM D3406 or as approved by the Engineer. Joint sealant shall not contain any coal tar materials. The following requirement shall be added to paragraphs 7.1 of ASTM D3406:

The minimum ambient temperature during application and ambient temperatures under various storage conditions shall be clearly marked on the container.

729.3 TEST REPORT AND SHIPMENT CERTIFICATE:

When requested by the Engineer, each shipment shall be accompanied by a Certificate of Compliance that the material complies with the above specifications.

- End of Section -

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December 6, 2017

HD Supply White Cap,

Current State DOT Approval Status for Nomaflex®

Nomaflex®, a semi-rigid, closed-cell polypropylene foam, preformed expansion joint filler material as manufactured by Nomaco, Inc., fully complying with the physical properties and performance requirements of **ASTM D8139-17** has been approved for DOT work or is under evaluation with the following state department of transportation agencies.

AGENCY	NOMAFLEX APPROVAL STATUS AS OF 12/01/2017
AK DOT	Has not been submitted.
AL DOT	Under evaluation.
AR DOT	Revised Standard Specification is under review.
AZ DOT	Under evaluation.
CA DOT	Under evaluation.
CO DOT	Standard Specification has been revised to allow PP foam (Nomaflex).
CT DOT	Under evaluation.
DE DOT	Use with preapproval permitted.
FL DOT	Approved for developmental use.
GA DOT	Approved for use.
HI DOT	Has not been submitted.
IA DOT	Approved for use.
ID DOT	Revised Standard Specification is under review.
IL DOT	Under evaluation.
IN DOT	Under evaluation.
KS DOT	Standard Specification has been revised to allow PP foam (Nomaflex).
KY DOT	Approved for field trials.
LA DOT	Approved for use.
MA DOT	Under evaluation.
MD DOT	Under evaluation.
ME DOT	Under evaluation.
MI DOT	Revised Standard Specification is under review.
MN DOT	Approved for use.

MO DOT	Approved for use.
MS DOT	Approved for use.
MT DOT	Approved for field trials.
NC DOT	Approved for use.
ND DOT	Under evaluation.
NE DOT	Under evaluation.
NH DOT	Revised Standard Specification is under review.
NJ DOT	Approved for field trials.
NM DOT	Under evaluation.
NY DOT	Approved for use.
NV DOT	Under evaluation.
OH DOT	Approved for use.
OK DOT	Approved for field trials.
OR DOT	Approved for use.
PA DOT	Approved for field trials.
RI DOT	Under evaluation.
SC DOT	Approved for field trials.
SD DOT	Under evaluation.
TN DOT	Revised Standard Specification is under review.
TX DOT	Approved for use.
UT DOT	Approved for use.
VA DOT	Approved for field trials.
VT DOT	Standard Specification has been revised to allow PP foam (Nomaflex).
WA DOT	Approved for use.
WI DOT	Approved for use.
WV DOT	Under evaluation.
WY DOT	Approved for use.

Best regards,



Larry Weimer

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NOMAFLEX®

Polypropylene Joint Filler



Nomaflex® is a performance engineered foam that sets a new standard for the protection of concrete expansion and contraction joints. It is a closed cell extruded polypropylene foam that performs better, installs faster, and adds more value to the installed job.

PERFORMANCE

Nomaflex is a closed cell polypropylene foam that can be used in residential, commercial, civil, municipal and industrial applications. It will not absorb water and extends the service life of concrete by acting as an insulator to contraction and expansion joints. Nomaflex does not impede sealant cure time and can be used without a bond breaker.

Nomaflex resists oils, gas, salts, acetone and other chemicals. It does not leach like other products and is not sticky. Nomaflex complies with ASTM D 545 and D 1751 test methods for extrusion, compression recovery and water absorption.

INSTALLATION

Nomaflex is a flexible yet semi-rigid foam that can be passed across wet pours without breaking. It transports easily and is light enough that one person can easily carry multiple bundles.

Nomaflex can be used with all hot-pour or cold-applied sealants and prevents 3-sided sealant adhesion. When using sealants, Nomaflex should be installed 1/2" below the concrete surface to allow space for joint sealant. Nomaflex is compatible with plastic edge caps and should be installed prior to pouring concrete. Nomaflex can be used as a form and should be installed against any edge where concrete is poured and an expansion joint is required. Spray adhesives can also be used with Nomaflex.

VALUE

Nomaflex is waterproof and can be stored outside. It will not break or flake due to weather elements. Nomaflex lasts longer and is 100% recyclable. Installers have the added benefit of a lower installed cost when using Nomaflex.

Features

- Natural bond breaker
- Ultra lightweight
- Flexible, bends to 12" diameter
- Moisture resistant
- Can be stored outside
- Traditional methods used for installation
- Can be used with hot-pour and cold-applied sealants
- Clean product
- Inert
- Recyclable
- Reusable
- Made in USA

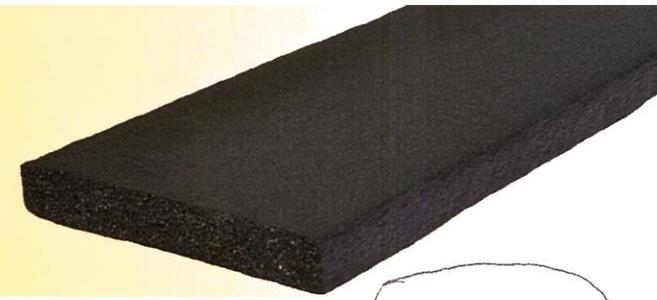
PHYSICAL PROPERTIES

Property	Value	ASTM Test Methods
Water Absorption	<1%	D 545, D 1751
Compression Recovery, %, min	>80%	D 545, D 1751, D 1752
Extrusion	<0.1%	D 545, D 1751, D 1752
Boiling in Hydrochloric Acid	No disintegration	D 545, D 1752
Expansion in Boiling Water	No expansion	D 545, D 1752
100% Recyclable	N/A	N/A

PRODUCT INFORMATION

Product	Linear Ft/ Unit	Unit	Feet per Pack	# of 10 Packs per Skid	Linear Ft / Pallet 5'	10'
1/2" x 3-1/2"	5' / 10'	Bundle of 10	50 / 100	104	5,200	10,400
1/2" x 4"	5' / 10'	Bundle of 10	50 / 100	96	4,800	9,600
1/2" x 5"	5' / 10'	Bundle of 10	50 / 100	72	3,600	7,200
1/2" x 6"	5' / 10'	Bundle of 10	50 / 100	64	3,200	6,400
1/2" x 8"	5' / 10'	Bundle of 10	50 / 100	48	2,400	4,800
3/4" x 3-1/2"	5' / 10'	Bundle of 10	50 / 100	78	3,900	7,800
3/4" x 4"	5' / 10'	Bundle of 10	50 / 100	72	3,600	7,200
3/4" x 5"	5' / 10'	Bundle of 10	50 / 100	54	2,700	5,400
3/4" x 6"	5' / 10'	Bundle of 10	50 / 100	48	2,400	4,800
3/4" x 8"	5' / 10'	Bundle of 10	50 / 100	36	1,800	3,600
1" x 3-1/2"	5' / 10'	Bundle of 10	50 / 100	52	2,600	5,200
1" x 4"	5' / 10'	Bundle of 10	50 / 100	48	2,400	4,800
1" x 5"	5' / 10'	Bundle of 10	50 / 100	36	1,800	3,600
1" x 6"	5' / 10'	Bundle of 10	50 / 100	32	1,600	3,200
1" x 8"	5' / 10'	Bundle of 10	50 / 100	24	1,200	2,400

COMPARISON OF PREFORMED EXPANSION JOINT MATERIALS



	Sponge Rubber	Cork	Self-Expanding Cork	Asphalt-Impregnated Fiberboard	Polyethylene Foam or Polyolefin Blend	NOMAFLEX® (Polypropylene)
ASTM Standard Specification	ASTM D 1752, Type I	ASTM D 1752, Type II	ASTM D 1752, Type III	ASTM D 1751	ASTM D 7174	TBD
AASHTO Standard Specification	AASHTO M 153, Type I	AASHTO M 153, Type II	AASHTO M 153, Type III	AASHTO M 213	No current AASHTO Standard Specification	TBD
ASTM Standard Test Methods	ASTM D 545	ASTM D 545				
AASHTO Standard Test Methods (same as ASTM D 545)	AASHTO T 42	AASHTO T 42				
Compression (to 50% of original thickness)	Minimum > 50 psi, Maximum < 1500 psi	Minimum > 50 psi, Maximum < 1500 psi	Minimum > 50 psi, Maximum < 1500 psi	Minimum > 100 psi, Maximum < 750 psi	Min. at 75% comp. > 5 psi, Max @ 15% comp. < 300 psi	Minimum > 30 psi, Maximum < 60 psi
Recovery (from 50% after 10 minutes)	> 90%	> 90%	> 90%	> 70%	> 95%	> 80%
Extrusion (at 50% Compression)	< 0.25 in.	< 0.25 in.	< 0.25 in.	< 0.25 in.	< 0.5 in.	< 0.25 in.
Density (per ASTM D 545)	> 30 lbs./cu.ft.	> 15 lbs./cu.ft.	> 20 lbs./cu.ft.	> 18 lbs./cu.ft.	< 2 lbs./cu.ft.	> 3.5 lbs./cu.ft.
Water Absorption (per ASTM D 545)	not specified	not specified	moisture sensitive	< 15.0 %	< 0.5%	< 0.5%
Expansion in Boiling Water (per ASTM D 545)	not specified	not specified	> 140%	not specified	not specified	No observable change
Boiling in Hydrochloric Acid (per ASTM D 545)	not specified	No observable disintegration	No observable disintegration	not specified	not specified	No observable disintegration
Asphalt Content (per ASTM D 545)	N/A	N/A	N/A	> 35%	N/A	N/A
Heat Resistance	not specified	not specified	not specified	Hot-pour compatible	Varies	Hot-pour compatible
U.V. Resistance	Excellent	Good	Good	Good	Good	Excellent
Chemical Resistance	Good	Good	Good	Fair	Excellent	Excellent
Sealant Compatibility	Good	Good	Good	Fair	Excellent	Excellent

COMPARISON OF NOMAFLEX® AND ASPHALT-IMPREGNATED FIBERBOARD



Referenced Standard Test Methods: ASTM D 545 and AASHTO T 42
 Referenced Standard Specifications: ASTM D 1751 and AASHTO M 213

Physical Properties	Nomaflex	Asphalt-Impregnated Fiberboard	Added Value of Nomaflex
Water absorption	< 0.5% by volume: Does not swell or absorb any practical amount of water	Absorbs water up to 15% by volume in 24 hours, then swells and separates	Nomaflex will last longer in the presence of moisture and ongoing precipitation
Compression (to 50%)	Minimum > 30 psi, Maximum < 60 psi	Minimum > 100 psi, Maximum < 750 psi	Nomaflex withstands concrete expansion / contraction with no impact on structural integrity
Recovery (from 50%)	> 80% Compression Recovery	> 70% Compression Recovery	Nomaflex stays in place and keeps the joint free of debris with or without a sealant
Extrusion (at 50%)	< 0.25 in. movement	< 0.25 in. movement, (frequently misses this test approval due to variance in product composition)	Nomaflex offers more consistency and stability due to its polypropylene composition
Expansion in boiling water	No expansion after immersion in boiling water for 1 hr.	No published test results to this standard	Nomaflex shows superior performance (both structurally and for moisture resistance) with this extreme test
Disintegration in boiling hydrochloric acid (HCl)	No disintegration after immersion in boiling hydrochloric acid (HCl) for 1 hr.	No published test results to this standard	Nomaflex shows superior performance (both structurally and with chemical resistance) with this extreme test
Density	> 3.5 lbs./cu.ft.	> 18 lbs./cu.ft.	Nomaflex is light weight and easier to handle, and its polypropylene composition provides rigidity with superior resistance to breakage
Sealant compatibility	Compatible with all known concrete joint sealants	Not always compatible with polyurethane or silicone based sealants as indicated by the sealant manufacturers	Nomaflex® allows for a superior bond between the concrete and sealant without 3-sided adhesion or impacting cure times, nor will it discolor the sealant as seen with asphalt-impregnated fiberboard due to asphalt leaching
UV resistance	Excellent UV resistance	Good UV resistance	Nomaflex is made with UV inhibitors for extended life with or without joint sealant
Chemical Resistance	Excellent chemical resistance (polypropylene is a chemically inert compound)	Fair chemical resistance (fibers come apart in the presence of various chemical)	Nomaflex is chemically inert. Asphalt-impregnated fiberboard is not. Nomaflex will not react with salts, gasoline products, motor oils, acetone and countless chemicals used on and around concrete structures