

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	ASTM D 8139
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	N/A
ASTM Standard Test Methods	ASTM D 545	ASTM D 545	ASTM D 545	ASTM D 545	ASTM D 545	ASTM D 545
AASHTO Standard Test Methods (same as ASTM D 545)	AASHTO T 42	AASHTO T 42	AASHTO T 42	AASHTO T 42	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.	< 0.1 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%	< 1%
Expansion in Boiling Water (per ASTM D 545)	not specified	not specified	> 140%	not specified	not specified	<1% expansion
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