

Gaco Western

S I N C E 1 9 5 5

Product Data Sheet:

Gaco 052N

March 2019

Supersedes 09/16

NOTE: Listed as GacoGreen 052 and 052N

Gaco 052N OPEN CELL SPRAY FOAM INSULATION

DESCRIPTION

Gaco 052N is a two component water-blown (zero ozone-depleting) liquid spray system that cures to a low-density cellular polyurethane insulation material. This open cell foam is designed to provide: good thermal performance; air impermeable insulation; and, an integral part of an air barrier assembly.

Gaco 052N is a Class A (Class 1) fire rated foam that meets the requirements of ICC-ES AC377 *Acceptance Criteria for Foam Plastic Insulation*. See ICC-ES ESR-2478 for code compliant application information.

RECOMMENDED USES

Gaco 052N will provide good performance in a wide range of residential, commercial and industrial applications where in service temperatures are between -40 °F and 200 °F (-40 °C and 93 °C). Acceptable uses for this product include: walls, ceilings, floors, attics and crawlspaces.

PHYSICAL PROPERTIES

The following physical property tests were conducted by independent certified laboratories with traceable samples in accordance ICC-ES AC377.

PROPERTY*	ASTM TEST	VALUE	UNIT
Core Density	D1622	0.50 ± 10%	lb/ft ³
Aged R-Value **	C518	R 4.2 at 1" (25.4 mm)***	h·ft ² ·°F/Btu
	C518	R 16 at 4" (101.6 mm)***	h·ft ² ·°F/Btu
Tensile Strength	D1623	4.4	psi
Water Vapor Permeance	E96 – Method A	13	perm-in
Dimensional Stability (7 Days)	D2126	2.7	% volume change
Open Cell Content	D2856	99.4	%
Air Permeance @ 75Pa	E283	0.009 at 3.5"	L/s·M2
Fungi Resistance	G21	Pass	no growth

*These items are provided for general information.

**Federal Trade Commission regulations published in the Federal Register 16 CFR Part 460 require that R value testing of polyurethane foam insulation must be conducted on aged samples at a 75 °F (24 °C) mean test temperature. Failure to comply can result in substantial fines by the FTC.

***To determine R values for thickness not listed:

- between 1" (25.4 mm) and 4" (101.6 mm) can be determined through linear interpolation; or,
- greater than 4" (101.6 mm) can be calculated based on R 3.91/inch

SURFACE BURNING CHARACTERISTICS

Meets Class A (Class 1) requirements when tested in accordance with ASTM E84 (UL 723) as defined in NFPA 101 and Section 803 of the International Building Code (2009, 2012).

SYSTEM	THICKNESS	FLAME SPREAD INDEX	SMOKE DEVELOPED INDEX
Gaco 052N	6" (152.4 mm)	25	250



LARGE SCALE FIRE TESTING

Test	Performance	LOCATION	FOAM THICKNESS / COATING
AC377, Appendix X	Ignition Barrier	Attic floors, walls and roof Crawspace walls and ceiling	Up to 11.25" (28.6 cm) / DC315 - 4 mils wet
AC377, Appendix X	Ignition Barrier	Attic and Crawspaces Vertical surfaces Horizontal or sloped surfaces	Up to 11.5" (29.2 cm) / TPR ² FireShell - 14 mils wet
NFPA 286	Thermal Barrier	Any	Up to 11.25" (28.6 cm) / DC315 - 20 mil wet
NFPA 286	Thermal Barrier	Vertical surfaces Horizontal or sloped surfaces	Up to 5.25" (13.3 cm) / TPR ² FireShell - 14 mils wet Up to 9.25" (23.5 cm) / TPR ² FireShell - 14 mils wet

Gaco 052N meets the IBC Chapter 26 requirements for use in Type I, II, III, IV construction types through evaluation to NFPA 285 (Project 10318C). This evaluation is limited to installation in the cells of concrete masonry units and within light-gauge metal framing sheathed with 5/8" (15.9 mm) Type X gypsum.

LEED INFORMATION

Gaco 052N has a minimum of 0.5% bio content based on weight. Gaco 052N raw materials are blended in Waukesha, WI. Actual polyurethane foam end product production is done on-site by the applicator.

TYPICAL LIQUID CHEMICAL PROPERTIES

"A" Component contains polymeric isocyanate. "B" Component contains polyol, catalysts, fire retardants, surfactants and blowing agents.

PROPERTY	TEST TEMPERATURE	ASTM TEST	VALUE	UNIT
Viscosity – "A" Component:	77 °F (25 °C)	D2196	200 ± 50	cps
Viscosity – "B" Component:			300 ± 50	cps
Weight/Gallon – "A" Component:	77 °F (25 °C)	---	10.34	lb/gal
Weight/Gallon – "B" Component:			9.5	lb/gal
Mixing Ratio – "A" & "B" Component	---	---	1:1	by volume
Stability When Stored at 50 °F to 100 °F (10 °C to 38 °C)	---	---	A Component – 6 B Component – 9	months months

APPLICATION

To ensure optimum performance, a minimum pass thickness of 1" (2.54 cm) is recommended with no limit to maximum pass thickness. To obtain optimum results substrate temperature should be within the ranges as stated below. All substrates must be dry at the time of application. Do not apply to wood surfaces with a moisture content of above 18%.

Material	Substrate Temperature
Gaco 052N	40 °F to 120 °F (4 °C to 49 °C)

EQUIPMENT SETTINGS	REACTIVITY TIME
Pre-Heaters - Iso (A):	110 °F to 150 °F (43 °C to 66 °C)
Pre-Heaters - Poly (B):	110 °F to 150 °F (43 °C to 66 °C)
Hose Heat:	110 °F to 150 °F (43 °C to 66 °C)
Recommended Spray Pressure:	1,200 to 1,400 psi (dynamic)
	Cream Time: 1 second
	Rise Time: 3 - 4 seconds
	Tack Free Time: 5 seconds
	Cure Time: 4 hours

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For specific Safety and Health information please refer to Safety Data Sheet.

