Gaco™

Product Data Sheet (PDS):

Gaco™ 180M (CAN)
Revised: 11/2022

GACO™ 180M (CAN)
CLOSED-CELL SPRAY FOAM INSULATION (CANADA)

A. PRODUCT DESCRIPTION:

CCMC #13644-L

Gaco 183M-CAN is a two component HFC-blown (zero ozone-depleting) liquid spray system that cures to a medium-density rigid cellular polyurethane insulation material. Gaco 183M-CAN contains polyols derived from naturally renewable oils, post-consumer recycled plastics, and pre-consumer recycled materials.

This closed cell foam is designed to provide: excellent thermal performance; air impermeable insulation; and an integral part of an air barrier assembly. The finished material meets or exceeds the requirements of CAN/ULC-705.1.

The cured material is pewter in colour.

B. PHYSICAL PROPERTIES:

*PROPERTY**	*TEST*	*VALUE*	*UNIT*
CORE DENSITY	ASTM D1622	32.2 (2.02)	Kg/m^3 (lbs/ft^3)
AGED THERMAL RESISTANCE (R-VALUE) (180 DAYS AT 23°C; 50 MM THICK SPECIMENS)	ASTM C518	2.30	$m^2 \cdot K/W$
LONG TERM THERMAL RESISTANCE			
100 MM	CAN/ULC-S770	3.88	$m^2 \cdot K/W$
75 MM	CAN/ULC-S770	2.79	$m^2 \cdot K/W$
50 MM (TYPE 1)	CAN/ULC-S770	1.80	$m^2 \cdot K/W$
25 MM	CAN/ULC-S770	0.89	$m^2 \cdot K/W$
COMPRESSIVE STRENGTH	ASTM D1621	181	kPa
TENSILE STRENGTH	ASTM D1623	269	kPa
DIMENSIONAL STABILITY (7 DAYS)			
AT -20°C	ASTM D2126	-0.1	% volume change
AT 80°C		0.5	% volume change
AT 70°C, 97 ± 3 % RH		6.4	% volume change
OPEN CELL CONTENT	ASTM D2856	2.6	%

SURFACE BURNING CHARACTERISTICS			
FLAME SPREAD RATING	CAN/ULC-S127	255	
SMOKE DEVELOPMENT CLASSIFICATION	CAN/ULC-S102	330	
WATER ABSORPTION	ASTM D2842	0.71	% by volume
WATER VAPOR PERMEANCE (50 MM THICK SPECIMEN)	ASTM E96 – Method A	36	Ng/Pa·s·m^2
AIR PERMEANCE @ 75PA (INFILTRATION/EXFILTRATION)	ASTM E2178	0.0013	L/s·m^2
AIR BARRIER ASSEMBLY TESTING	ASTM E2357	0.0027	L/s·m^2
CRACK BRIDGING	ASTM C1305	Pass @ -26 °C (-15 °F)	Pass
PULL ADHESION CONCRETE MASONRY UNIT GYPSUM SHEATHING (DENS GLASS) ORIENTED STRAND BOARD (OSB)		 237 162 210	 kPa kPa kPa
FUNGI RESISTANCE	ASTM C1338	Pass	no growth
VOLATILE ORGANIC COMPOUNDS	Can/ULC-S774	Pass	
TIME TO OCCUPANCY		1	hour

*These items are provided for general information.

C. RECOMMENDED USES:

Gaco 183M-CAN will provide excellent performance in a wide range of residential, commercial and industrial applications where in service temperatures are between -40 °C and 93 °C

Walls Ceilings Floors	Attics Crawlspaces Foundations	Concrete Slabs Residential Ducts Plenums	Cold Storage Freezers Piping	Storage tanks Other Industrial Applications

D. LEED INFORMATION:

Gaco 183M-CAN has a minimum of 8.6 % recycled content based on weight, including 6.6 % pre-consumer material and 2.0 % post-consumer material. Gaco 183M-CAN raw materials are blended in Waukesha, WI. Actual polyurethane foam end product production is done on-site by the applicator.

E. TYPICAL LIQUID CHEMICAL PROPERTIES:

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

PROPERTY	*TEST TEMPERATURE*	*ASTM TEST*	*VALUE*	*UNIT*
VISCOSITY – "A" COMPONENT: **VISCOSITY – "B" COMPONENT:**	25 °C (77 °F)	D2196	200 ± 50 750 ± 50	cps cps
SPECIFIC GRAVITY – "A" COMPONENT: **SPECIFIC GRAVITY – "B" COMPONENT:**	25 °C (77 °F)	D1638	1.22 1.20	S.G. S.G.
WEIGHT/GALLON – "A" COMPONENT: **WEIGHT/GALLON – "B" COMPONENT:**	25 °C (77 °F)		10.34 10.0	lbs/gal lbs/gal

MIXING RATIO – "A" & "B" COMPONENT			1:1	By volume
STABILITY WHEN STORED AT 10 °C TO 21 °C (50 °F TO 70 °F)			A Component – 12 B Component – 6	Months Months

F. APPLICATION:

To ensure optimum performance, a minimum pass thickness of ¾ in (1.9 cm) is recommended with the maximum not to exceed 2 in (5.1 cm) per pass. 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 183M-CAN	4.4 °C to 48.9 °C (40 °F to 120 °F)
GACO 183M-CANW	-1.1 °C to 37.8 °C (30 °F to 100 °F)

EQUIPMENT SETTINGS	*VALUE*
PRE-HEAT: ISO (A)	41 °C to 57 °C (105 °F to 135 °F)
PRE-HEAT: POLY (B)	41 °C to 57 °C (105 °F to 135 °F)
HOSE HEAT	41 °C to 57 °C (105 °F to 135 °F)
RECOMMENDED SPRAY PRESSURE	1,000 to 1,200 psi (dynamic)

PRODUCT CHARACTERISTICS	*VALUE*
CREAM TIME	0 - 1 seconds
RISE TIME	3 - 6 seconds
TACK FREE TIME	4 - 8 seconds
CURE TIME	4 hours

** For specific Safety and Health information please refer to the appropriate Safety Data Sheet that is associated with this product & published on Gaco.com.*