

# Creating warm and efficient buildings for happy and productive animals.

ENERGY-EFFICIENT.

STRONG.

HEALTHY.

RESPONSIBLE.

QUIET.

A HEALTHIER  
**AGRICULTURAL**  
SYSTEM

**GacoToughFoam**  
HIGH DENSITY 10 LB SPRAY FOAM

## CONTRACTOR / APPLICATOR BENEFITS

**HIGH DENSITY SPRAY FOAM.** Use in a variety of applications including poultry houses, livestock enclosures and uninhabited storage buildings.

**EXPANDED SCOPE OF WORK.** Increase sales by adding agricultural and metal building applications to your services.

**VERSATILE.** Ideal for use on all types of substrates, either alone or as a system with other Gaco closed cell foams. Your options are unlimited.

**OPTIONAL COLORS.** Available in black and no color.

## OWNER BENEFITS

**ENERGY EFFICIENT.** Seamless air barrier reduces uncontrolled air leakage and lowers energy costs.

**HEALTHY.** Reduces condensation, moisture and mold to help prevent disease; improves living environment and helps increase livestock and poultry productivity.

**STRONGER.** Resists damage from livestock and poultry and offers durability for the everyday industrial and agricultural environment.

**RESISTANT.** Battles darkling beetle and other insect infiltration.



High density 10 lb. GacoToughFoam covering high R-value Gaco 183M 2 lb. spray foam.



# GacoToughFoam

HIGH DENSITY 10 LB SPRAY FOAM

Two spray foam products unite to create a durable agricultural system.

## GacoToughFoam Agricultural System

The GacoToughFoam Agricultural System consists of high R-value 2 lb. spray foam covered with high density 10 lb. spray foam to create an insulation solution suitable for use in poultry houses as well as dairy, equestrian, swine and other farm and ranch applications where high performance and exceptional durability are required.

### Why insulate with spray foam?

Side wall curtains common in many agricultural buildings have a low R-value and can be responsible for a significant amount of heat loss during the colder months. Insulating with materials other than spray foam can result in remaining cracks and crevices.

### With GacoToughFoam Agricultural System, air leakage is virtually eliminated.

Due to the size of building side walls, small cracks throughout your agricultural building can add up to big amounts of total energy loss. GacoToughFoam Agricultural System seals these cracks to enable the temperature to be managed at consistent levels and limit the ability of airborne disease to spread.

Money is saved as air leakage is blocked, and money is gained as livestock growth and production levels increase.

### GacoToughFoam Agricultural System creates a healthier environment for your animals.

In addition to limiting airborne disease spread, GacoToughFoam Agricultural System reduces condensation, moisture and mold, helping to prevent sickness while improving the living environment.



# GacoToughFoam

HIGH DENSITY 10 LB SPRAY FOAM



**GacoToughFoam Agricultural System** consists of Gaco 183M 2 lb. spray foam – Meets NFPA 286 and ASTM E84 requirements, see Intertek Research Report IRR-1002 – covered by the environmentally safe, spray applied GacoToughFoam 10 lb. spray foam to protect the overall system.



GacoToughFoam F10000

Gaco 183M

## **GacoToughFoam Agricultural System stands up to natural predators.**

Darkling beetles are common enemies of insulation as they burrow to create holes and weaken the material. GacoToughFoam Agricultural System is designed to battle darkling beetle and other insect infiltration. In addition, the rigidity of the insulation not only strengthens the building structure, but also helps resist damage from animals inside the agricultural building.

## **GacoToughFoam Agricultural System creates a relaxing environment.**

GacoToughFoam is available in both black and no color options and is sprayed over gray-colored Gaco 183M – these darker colors provide a comfortable and calming effect for your animals.



***Creating warm and efficient buildings for happy and productive animals.***

# Two spray foam products unite to create a durable Agricultural System.

GacoToughFoam Agricultural System consists of Gaco 183M 2 lb. spray foam – Meets NFPA 286 and ASTM E84 requirements, see Intertek Research Report IRR-1002 – covered by the environmentally safe, spray applied GacoToughFoam 10 lb. spray foam to protect the overall system.

## PHYSICAL PROPERTIES

The following are the relevant physical properties of products used in the GacoToughFoam system. Please see the product data sheets for additional information.

PROPERTY*	ASTM TEST	VALUE
<b>Gaco 183M</b>		
Core Density	D1622	2.0 ± 10% lbs/ft <sup>3</sup>
Aged R-Value**	C518	R 6.4 at 1" *** h ft <sup>2</sup> °F/Btu R 23.3 at 3.5" h ft <sup>2</sup> °F/Btu (R6.67 per inch) ***
Compressive Strength (Parallel to Rise)	D1621	32 psi
Tensile Strength	D1623	64 psi
Water Absorption (96 hours, 2" head, 70-74°F (21-23°C))	D2842	0.71% by volume
Water Vapor Permeance	E96 - Method A	1.12 perm-in
Dimensional Stability (7 Days)	D2126	L=6%, W=5%, T=3% linear change
Air Permeance @ 75 Pa (Infiltration/Exfiltration)	E2178	0.0013 L/s m <sup>2</sup>
Fungi Resistance	C1338	Pass (no growth)
<b>GacoToughFoam F10000</b>		
Core Density	D1622	10 ± 10% lbs/ft <sup>3</sup>
Aged R-Value**	C518	R 4.8 at 1" *** h-ft <sup>2</sup> °F/Btu
*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 mean test temperature. Failure to comply can result in substantial fines by the FTC.		
***To determine R values for thickness not listed: Between 1 inch and 3.5 inch can be determined through linear interpolation; greater than 3.5 inches can be calculated based on R 6.67/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, 2015).

SYSTEM	THICKNESS	FLAME SPREAD INDEX	SMOKE DEVELOPED INDEX
Gaco 183M	4" (10.2 cm)	10	400
GacoToughFoam F10000		20	105

## LARGE SCALE FIRE TESTING

TEST	PERFORMANCE	LOCATION	FOAM THICKNESS / COATING
AC377, Appendix X	Ignition Barrier	Attic and crawlspace walls Attic and crawlspace ceiling	Up to 7.5" (19.05 cm) / no coating required Up to 9.5" (24.13 cm) / no coating required
NFPA 286	Thermal Barrier	Vertical surfaces Horizontal or sloped surfaces	Up to 5.5" (13.97 cm) / DC315 - 20 mil wet Up to 7.5" (19.05 cm) / DC315 - 20 mil wet
NFPA 286	Thermal Barrier	Vertical surfaces Horizontal or sloped surfaces	Up to 5.5" (13.97 cm) / DC315 - 6 mil wet primer & 22 mil wet Up to 9.5" (24.13 cm) / DC315 - 6 mil wet primer & 22 mil wet

Gaco 183M meets or exceeds the IBC requirements for exterior walls in type I, II, III, IV and V construction. This includes NFPA 285 and NFPA 259 testing with Intertek Listings (GWL/FIP 30-02, GWL/FIP 30-01) and one-hour fire resistance rating per ANSI/UL 263 (UL Design W426) which is equivalent to ASTM E119.

Contact us today for more information about the GacoToughFoam Agricultural System.

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**Gaco Western**  
SINCE 1955

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