



PRODUCT DESCRIPTION

Patriot 10G is a water-blown, spray applied ten pound closed cell foam that cures to a high-density rigid cellular polyurethane insulation material.

RECOMMENDED USES

Patriot 10G is formulated for use in a variety of applications including poultry houses, livestock enclosures and uninhabited storage buildings. It may be used alone or as a system with other Patriot Foam & Coatings spray products.

SURFACE BURNING CHARACTERISTICS

Patriot 10G 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).

Liquid Component Properties

PROPERTY	DENSITY
Density	10.0
Viscosity 25°C	
Component A	200
Component B	1250
Specific Gravity 25°C	
Component A	1.24
Component B	1.17
Mix ratio by volume (A/B)	50/50

Processing Characteristics

PROPERTY	72°F (HAND MIX)			SPRAYED*		
	Winter	Regular	Summer	Winter	Regular	Summer
Cream Time	4 Sec.	5 Sec.	6 Sec.	1-2 Sec.	1-2 Sec.	1-2 Sec.
Rise Time	15-16 sec.	19 sec.	22 sec.	4-5 sec.	5-6 sec.	6-7 sec.
Tack Free	On Rise	On Rise	On Rise	On Rise	On Rise	On Rise

*Nominal 1" thickness sprayed through Graco E30 proportioner, Fusion AP Gun with AR 5252 mixing chamber: preheat set at 130°F, hose heat set to maintain 130°F at the spray gun. Reaction times are influenced by mix efficiency of the spray gun, temperature of the components, ambient conditions and thickness of the foamed mass.

Nominal Cured Physical Properties

Dimensional Stability Properties

PROPERTY	ASTM TEST METHOD		ASTM D-2126				
			DAYS	°F	°C	%R.H.	AV
Sprayed-in-place Density	D-1622	10.0	28	-20	-29	DRY	N/C
Compressive Strength	D-1621	325 psi	28	158	70	100%	+7%
Tensile Strength	D-1623	300 psi	28	158	70	DRY	+1%
Shear Strength	C-273	140 psi					
Flame Spread	E-84	< 25					
Smoke Development	E-84	< 450					

This information is intended only as a guide for design purposes. The values shown are the average values obtained from laboratory prepared samples and results may vary with application conditions, equipment and technician.

The information contained herein is for purposes of identifying the product and does not constitute a warranty that the product will conform to that description. Product specifications and performance will vary depending on application methodologies, raw materials and other factors

CAUTION
The use of foamed plastic in interior applications on walls or ceilings may present an unreasonable fire hazard unless the foam is protected by an approved, fire-resistive thermal barrier which has a finish rating of not less than 15 minutes.

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Patriot 10G

DISCRIPTION AND GENERAL USE

Patriot 10G systems are light density spray polyurethane insulations designed to be fluid-applied to construction surfaces to effect a permanent, monolithic and dimensionally stable thermal insulation.

Patriot 10G systems are a sophisticated plural component building product which should be applied only by trained and manufacturer-approved insulation experts familiar with the properties of this material.

Patriot 10G systems are specifically designed as insulation for construction applications where the end use ambient temperature range will be maintained between -100°F and 225°F.

When considering any other use for this product, consult Patriot Foam & Coatings for specific application recommendations.

SUBSTRATE PREPARATION

For optimum results, surfaces to receive Patriot 10G should be clean and dry, free of dirt, oil, solvent, grease, loose particles, peeling coating and other foreign matter.

Untreated ferro metallic substrates should be sandblasted in accordance with SSPC-SP6. Sandblasted surfaces should be primed immediately with an approved primer.

Galvanized and stainless steel surfaces should be treated with an appropriate wash primer prior to the application of Patriot 10G. Porous substrates such as wood and concrete may not require priming if surfaces are clean and dry with less than 10% moisture content.

FOR BEST RESULTS ON SURFACES WHERE MOISTURE CONTENT CANNOT BE DETERMINED OR CONTROLLED, PRIMING IS RECOMMENDED.

Consult Patriot Foam & Coatings for specific application requirements.

SUBSTRATE TEMPERATURE

Patriot 10G systems may be applied to surfaces with temperatures as low as 50° deg. in most instances.

Please consult with Patriot Foam & Coatings technical representatives for certain requirements.

SHELF LIFE

Shelf life of Patriot 10G is 6 months from the date of manufacture when stored in original unopened containers at temperatures between 50o - 75o F. Temperatures above 75o F may decrease shelve life.

FREIGHT CLASSIFICATION

Liquid Plastic Material -- NOIBN

AMBIENT AIR TEMPERATURE

Winter	Regular	Summer
50 - 60°F	65 - 85°F	Above 90°F

TECHNICAL SERVICE PERSONNEL SHOULD BE CONSULTED IN ALL CASES WHERE APPLICATION CONDITIONS ARE MARGINAL.

EQUIPMENT

Proportioning equipment shall be manufactured by PMC, Graco or equivalent. Mixing ratio by volume is 50 parts "A" to 50 parts "B".

Equipment shall be heated airless type, capable of maintaining 120°F to 140°F mixed material at the spray gun.

Optimum spraying temperature will vary as a function of substrate and ambient conditions.

APPLICATION

For optimum performance, a minimum pass thickness of 1/4" is recommended with the maximum not to exceed 1/2" per pass.

If sprayed in multiple passes, sufficient cooling off time must be allowed. Patriot 10G systems bond best to themselves when the previous pass is still warm (above 70°F).

Patriot 10G performs best when coated the same day of application, however it may be left exposed for up to 24 hours.

If Patriot 10G is exposed for a period greater than 24 hours, please contact Patriot Foam & Coatings for recommendations.

CLIMATIC CONDITIONS

No spraying should be done when moisture is present in the form of rain, dew or relative humidity greater than 80%, or when there is wind more than 15 m.p.h.

PROTECTIVE COATING

Patriot 10G, when applied to exterior weathering surfaces, must be top coated with an approved elastomeric coating.

All coatings shall be applied in accordance with Universal Polymers Corporation. or other coating manufacturer's instructions.

FIRE AND THERMAL BARRIER

Patriot 10G polyurethane insulation systems are combustible under many fire conditions.

A fire and thermal protection have a UL rated 15-minute finish rating should be used to cover all Patriot 10G systems used on interior wall or ceiling applications.

SPECIAL NOTE

Attention must be paid to coating selection in applications where a vapor drive may be present.

Consult Patriot Foam & Coatings technical service personnel for specific system recommendations.

STORAGE

Both liquid components of Patriot 10G systems should be stored in original unopened containers at temperatures between 500F and 75° F



Safety, Health & Toxicity Data

A Material Safety Data Sheet (MSDS) has been prepared on the Patriot 10G systems. All personnel who will encounter the product should read and understand the SDS.

PROTECTIVE EQUIPMENT

Since the Patriot 10G systems are atomized into a very fine particles distribution during spray application, it is essential that maximum effort is made to protect the spray mechanic and others near the workplace from undue exposure.

Component "A" Patriot Foam & Coatings systems are polymeric isocyanate and, as such, can be very sensitizing, particularly from the standpoint of VAPOR INHALATION.

Some other ingredients may be sensitizing from the stand point SKIN CONTACT OR EYE CONTACT.

VAPOR INHALATION

The best form of protection against isocyanate or potentially sensitizing vapors in the workplace is a fresh air supply.

Numerous manufacturers, including the 3M Company and MSA, make full face fresh air masks.

For maximum protection, we recommend use of NIOSH/MSHA approved self-contained breathing apparatus with a full-face piece operated in a positive pressure mode.

In well ventilated application conditions, the use of Type C organic vapor cartridge respirators may be acceptable.

SKIN CONTACT

To prevent excessive skin contact with the sprayed product, the use of fabric overalls and fabric gloves is recommended.

EYE CONTACT

Wear a full-face mask or OSHA-compliant protective goggles.

PROTECTION OF THE WORKPLACE

Over spray from Patriot 10G systems can carry considerable distances and attention should be given to the following:

1. Post warning signs a minimum of 100 feet from the work area.
2. Cover all intake vents near the work area.
3. Minimize or exclude all personnel not directly involved with the spray application.
4. No welding, smoking or open flames.
5. Have CO² or other dry chemical fire extinguisher available at the jobsite.
6. Provide adequate ventilation.

FIRST AID CONSIDERATION

Vapor inhalation problems are characterized by coughing, shortening of breath and tightness in the chest. Anyone exhibiting these types of symptoms should be immediately removed from the workplace and administered oxygen or fresh air. If the condition is prolonged or extreme,

SUMMON EMERGENCY TRAINED MEDICAL ATTENTION IMMEDIATELY.

Skin contact with liquid components can result in a rash or other irritation. Wash any affected skin area with clean water. Wipe residual liquid from the skin with a clean cloth, then wipe the affected area with a 30% solution of rubbing alcohol. Follow the alcohol wipe with repeated washings using soap and water. If a rash or other irritation develops, **SEE A PHYSICIAN.**

Eye contact with liquid or sprayed components can result in corneal burns or abrasions. Upon exposure, eyes should be flushed with water for an extensive period.

SUMMON EMERGENCY TRAINED MEDICAL ATTENTION IMMEDIATELY.

*The information herein is believed to be reliable, but unknown risks may be present. **Patriot Foam & Coatings** warrants only that the material shall be of merchantable quality; this warranty is in lieu of all other written or unwritten, expressed or implied warranties, and **Patriot Foam & Coatings** expressly disclaims any warranty for a purpose, or freedom from patent infringement. Accordingly, Buyer assumes all risks what's so ever as to the use of these materials and Buyer's exclusive remedy as to any breach of warranty or negligence claim shall be limited to the purchase price of the materials. Failure to strictly adhere to recommended procedure shall relieve **Patriot Foam & Coatings** of all liability with respect to the materials or the use thereof.*

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