

TECHNICAL DATA SHEET

Material Specification Criteria | Project Submittal Data



QUADFOAM® NATURESEAL OCX

QuadFoam NatureSeal OCX is a two component, spray-applied, low density, open cell polyurethane foam that contains +/-14% bio, renewable, recycled and sustainable content.

QuadFoam NatureSeal OCX is Class 1 rated and meets AC 377 Appendix X requirements without an Ignition Barrier Coating in Attics and Crawl Spaces.

QuadFoam NatureSeal OCX is excellent for thermal insulating, air sealing and sound reduction.

QuadFoam NatureSeal OCX is self-adhering and provides a seamless building envelope, reduces air infiltration/exfiltration, dust, pollution and pest infiltration.

QuadFoam NatureSeal OCX is a water blown product. It is designed for use in interior commercial and residential construction applications and is compatible with most common construction materials. The spray characteristics are tailored for attic and crawlspace application.

For proper use of this QuadFoam insulating materials or any polyurethane foam, please refer to the application information and any of the following codes or guidelines:

- API Fire Safety Guidelines for Use of Rigid Polyurethane and Polyisocyanurate Foam Insulation in Building Construction (AX230)
- ICC, International Building Code, (IBC), Section 2603
- International Residential Code, (IRC), Section R314

SPRAY FOAM INSULATION ADVANTAGES:

- **Zero** Flame Spread
- Controls Air Infiltration
- Reduces Energy Consumption
- Controls Moisture Infiltration
- Sound Suppression Properties
- High R-Value Per Inch
- Improves Indoor Air Quality
- Zero ODP

TYPICAL PHYSICAL PROPERTIES:

	QUADFOAM® NATURESEAL OCX	TEST
R-VALUE @ 1"	3.7	ASTM C-518
DENSITY	.5 pcf	ASTM D-1622
OPEN CELL CONTENT	> 95%	ASTM D-6226
SOUND TRANSMISSION COEFFICIENT	50 (STC)	ASTM C-423
AIR PERMEANCE	0.0012 ft. ³ /min-ft. ²	ASTM E-283
TENSILE STRENGTH	3.71 psi	ASTM D-1623
DIMENSIONAL STABILITY	< 15%	ASTM D-2126
FLAMMABILITY	Flame Spread: 0 Smoke Dev.: < 300	ASTM E-84 Class 1

APPLICATION INFORMATION

STORAGE AND USE OF CHEMICALS:

Storage temperatures should be 50 - 100°F for several days before use, and should not exceed 90°F. Do not store in direct sunlight. Keep drums tightly closed when not in use and under dry air or nitrogen pressure of 1-2 psi after they have been opened. Shelf life is twelve (12) months from date of manufacture when stored in original unopened containers at 40 - 80°F.

SAFE HANDLING OF LIQUID COMPONENTS:

Caution, contents may be under pressure. Loosen the small bung first and allow any pressure to release prior to removing. B-component may froth at elevated temperatures. Avoid prolonged breathing of vapors. In case of chemical contact with eyes, flush with water for at least 15 minutes and get medical attention. For further information refer to "MDI-Based Polyurethane Foam Systems: Guidelines for Safe Handling and Disposal" publication AX-119 published by the Alliance for the Polyurethanes Industry, Arlington, VA.

EQUIPMENT AND COMPONENT RATIOS:

The mix ratio is 1 to 1 by volume. The pre-heater and hose temperature should be set at 115 - 140°F, +/- 5°F.



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APPLICATION GUIDELINES: QuadFoam NatureSeal OCX is suitable for application to most construction materials including wood, masonry, concrete, and metal. All surfaces to be sprayed with foam should be clean, dry; and free of oil, greases, dew and or frost. Application temperature range of 45 - 120°F. Application temperatures below 45°F may require winter or cold weather foam grades and procedures.

Application thickness: 12 inches maximum thickness for open cell foam for each pass. Allow twenty minutes between each pass to allow for cooling. Multiple layers can be applied to reach the desired thickness and R-Value. See Page 3 for full application guidelines.

QuadFoam NatureSeal OCX insulation must be thoroughly mixed 20 to 30 minutes prior to application. QuadFoam recommends the use of a Graco Air-Driven Expanding Blade Bung-Mounted Agitator (Part Number: 24C729). To properly drive the mixer, 22 scfm of air is required. Using less air volume may require extended mixing times. A thorough highspeed mix is an essential step in high-quality foam production. QuadFoam NatureSeal OCX must be continually agitated throughout the entire spraying process in order to avoid any separation of the "B" side material. See the application guide for greater detail.

FINISHED FOAM PROTECTION: The finished surface of the sprayed polyurethane foam should be protected from sunlight and ultraviolet rays, which can cause dusting and discoloration. Protective coatings designed for use with polyurethane foams are available from QuadFoam.

HEALTH & SAFETY: Due to the reactive nature of these components, vapors and liquid aerosols present during application and for a short period thereafter must be considered – and appropriate protective measures taken – to minimize potential risks from overexposure through inhalation, skin, or eye contact. These protective measures include: adequate ventilation, safety training for installers and other workers, use of appropriate personal protective equipment, and a medical surveillance program. All OSHA, NIOSH and other regulations (as applicable) must be followed. See our website and SDS for more information. No other trades, home owners or others on site during application. A minimum of 24 hours after ventilation and job completion before re-entry.

As with all Spray Polyurethane Foam systems, proper application techniques must be followed. Examples of improper techniques include, but are not limited to, excessive thickness of SPF, off ratio material and spraying into or under rising foam. Potential results of improperly installed SPF include dangerously high reaction temperatures that may result in fire and offensive odors that may or may not dissipate. Improperly installed foam must be removed and replaced with properly installed SPF.

Foam insulation is combustible. Heat sources such as cutting torches, space heaters and welders must not be used in close proximity to any foam.

BUILDING CODES: QuadFoam NatureSeal OCX is Class 1 rated and meets AC 377 Appendix X requirements without an Ignition Barrier Coating.

PROPER STORAGE OF RAW MATERIALS: Shelf life is twelve (12) months from date of manufacture when stored indoors, in the original unopened containers and between the temperatures of 40°-80°F.

TECHNICAL ASSISTANCE: For additional assistance please contact the QuadFoam Technical Services dept. of Accella Polyurethane Systems, LLC. at (770) 607-0755.

DISCLAIMER: To the best of our knowledge, all technical data contained herein is true and accurate as of the date of issuance and subject to change without prior notice. User must contact QuadFoam to verify correctness before specifying or ordering. We guarantee our products to conform to the quality control standards established by QuadFoam. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY QUADFOAM EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

QUADFOAM® NATURESEAL OCX APPLICATION GUIDE

START-UP PROCEDURE:

- Place Air-Driven Expanding Blade Bung-Mounted Agitator (minimum required (Graco Part Number: 24C729) in NatureSeal OCX B-Side and start agitation.
- Recirculate through proportioner and hose to preheat material in drum to 85 - 95°F and ensure that product is well blended.
- The B-side Air-Driven Expanding Blade Bung-Mounted Agitator should remain on throughout the recirculation process and application process to maintain a uniform blend.

SUGGESTED PROCESSING PARAMETERS:

Pressures (Dynamic):	800 - 1450 psi
Drum Preheat Temperature:	"A" Side: 75° to 90°F (23° to 32°C) "B" Side: 75° to 90°F (23° to 32°C)
Machine Temperature Setting:	"A" Side: 115° to 140°F (46° to 60°C) "B" Side: 115° to 140°F (46° to 60°C)
Hose Heat Temperature:	115° to 140°F (46° to 60°C)
Surface Temperature:	45° to 120°F (7° to 49°C)
Storage Temperature:	50° to 100°F (10° to 38°C)
Maximum Agitator Working Pressure:	100 psi
Maximum Recommended Agitator Speed:	500 rpm

- The suggested parameters are a general guideline, but it is important to observe the foam quality and the way it lifts throughout the day and make adjustments as needed.
- When proportioner reaches initial preset temperatures, stop recirculation and connect a clean dual component spray gun.
- Spray an off target test area to ensure that proper processing pressure and temperature settings are obtained.

SHUT DOWN PROCEDURE:

- For breaks in application less than thirty minutes, it is recommended to grease your gun according to manufacturer guidelines. When returning from break, recirculate for 5 minutes to ensure material in hose is uniform and ready for application.
- To shutdown proportioner overnight:
 - a) Park proportioner according to manufacturer procedure
 - b) Use a purge pot (Graco part # 248139) to purge all material from spray gun.
 - c) Grease spray gun according to manufacturer procedure.

The information herein is to assist customers in determining whether our products are suitable for their applications. Customer assumes full responsibility for quality control, testing, and determination of suitability of product for its intended use or application. Accella warrants only that the material shall meet its specifications; this warranty is in lieu of all other written, expressed or implied warranties and Accella expressly disclaims any of merchantability, fitness for a particular purpose, or freedom from patent infringement. Accordingly, buyer assumes all risks whatsoever as to the use of material. Buyer's exclusive remedy as to any breach of warranty, negligence or other claim shall be limited to the purchase price of the material. Failure to adhere to any recommended procedures shall relieve Accella of all liability with respect to the material or the use thereof.



MANUFACTURED BY:

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EMERGENCY NOTIFICATIONS:

CHEMTREC : Material Leaks, Spills or Fire (800) 424-9300

