

## Product Description

XLS 2000® is a two-component, closed-cell spray polyurethane medium-density foam insulation system with the highest R-value of 7.7 at 1". This GREENGUARD Gold certified product has been developed using the EPA approved, environmentally conscious, 4th generation HFO blowing agent.

This high yield product provides superior thermal and moisture performance making it ideal for use in residential, commercial, industrial, and agricultural projects. The exceptional adhesion to substrates provides excellent air sealing capabilities and high productivity at the job site.

XLS 2000 is approved for installation in buildings in accordance with the IRC and the IBC, including types I, II, III & IV construction.

## Burn Characteristics

Surface Burning Characteristics @ 4" Thick	ASTM E84	Class 1
Flame Spread		10
Smoke Development		300
Walls and Ceiling Uncoated Thickness	ACC 377 Appendix X	Walls – 6" Ceiling – 10"
DC 315 Thermal Barrier	NFPA 286	Pass
Ignition Barrier Uncoated	NFPA 286 Appendix X	Pass
Commercial Fire Resistance	NFPA 285	Certified Compliant Systems**

## Thermal Resistance

Thickness	R-Value ( °F.ft <sup>2</sup> .h/Btu)
1.0	7.6
2.0	15
3.0	22
3.5	26
4.0	30
5.0	37

## Technical Properties

Attribute	Test	Results
Dimensional Stability* (Volume Change after 7 days)	ASTM D2126	-4.46% at 158°F & 97% RH
Water Vapor Transmission	ASTM E96 1"	0.827 perms
Density	ASTM D1622	2.0 lb/ft <sup>3</sup>
Closed Cell Content	ASTM D6226	97%
Compressive Strength	ASTM D1621	26.4 psi
Tensile Strength	ASTM 1623	32.8 psi
Water Absorption	ASTM D2842	0.5%
Air Permeance @ 75 PA	ASTM E2178	0.0016 L/S-m <sup>2</sup>
Air Barrier Assembly @ 1"	ASTM E 2357	0.0106 L/S-m <sup>2</sup> @ 75 PA, 0.0734 L/S-m <sup>2</sup> @ 300 PA
Hot Surface Performance	ASTM C411	194°F
CCRR Listing		CCRR-0397

\* Dimensional Stability was tested without a substrate.

\*\* See engineering design details.

## Application Information

- Product must be applied when surface and ambient temperatures are within manufacturer's prescribed limits. Acceptable substrate temperatures are 14°F to 120°F.
- XCELUS XLS 2000 may only be installed by XCELUS Licensed Dealers.
- Equipment must be able to deliver the proper ratio (1:1 by volume) at the recommended temperatures and pressures.
- Product applied at 4" maximum per pass. When multiple passes are required, subsequent passes can be sprayed once the core temperature drops below 100°F.
- Product should be covered within 90 days to limit UV exposure.
- Low voltage wiring must be sprayed in <1.5" passes and allowed to cool prior to additional passes.
- Adheres to most building material substrates.
- Detailed application information can be found in the XCELUS Building Systems Installation Manual.

## Water Vapor Permeance and Absorption

XLS 2000 is a Class II vapor retarder at 1" thickness.

## Health and Safety Handling

Properly fitting breathing apparatus supplying fresh air must also be worn by the installers and all other trades or helpers within 33 feet working distance of the installer. Protective gloves, coveralls, and eye protection must also be worn while spraying.

Mechanical ventilation with a minimum of 0.3 air changes per hour is also required during and after spray installation.

## Environmental and Health

XLS 2000 is formulated without harmful HFCs, using only ultra-low GWP (GWP of 1) HFO as a blowing agent.

This low VOC product is GREENGUARD Gold certified. Products that have achieved GREENGUARD Certification are scientifically proven to meet some of the world's most rigorous third-party chemical emissions standards, helping to reduce indoor air pollution at the risk of chemical exposure.

Many closed-cell alternatives have GWPs ranging from 700-1400. By selecting XCELUS XLS 2000, you are contributing to the reduction of greenhouse gas emissions.

XCELUS spray foam insulation products only use blowing agents that respect the environment.

XLS 2000 is PBDE-free.

## Related References

All physical properties were determined through testing by accredited third party agencies. XCELUS Building Systems Inc. reserves the right to change specifications in its effort of continuous improvement.

## Regulatory

- CCRR-0397 has been issued by Intertek.
- Meets ASTM C1029 Type II classification.
- For regulatory issues concerning XLS 2000 Contact XCELUS at 1 (800) 205-6131.

## Company Information

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