



FIBERGLAS™ UTILICORE® L-SERIES INSULATION

Owens Corning® Fiberglas™ UtiliCore® L-Series Insulation is a flexible white blanket designed for use in removable pads that are used in high-temperature commercial and industrial applications. The pliable, lightweight insulation offers outstanding thermal performance, making it an excellent choice as core insulation for removable and reusable industrial pipe covers, and other industrial pads and blankets.

Features

- L-Series products are low-binder blankets
- L-Series can be used in applications up to 1,000°F
- Flexible, lightweight material that makes it easy to install and wrap around curved surfaces
- Stitches can be sewn directly through material
- Low water absorption
- Lightweight insulation provides for easy cutting both in shop and in the field

Standards, Codes Compliance

- ASTM C553, Mineral Fiber Blanket Thermal Insulation, all UtiliCore L-Series products – Types I, II, III, IV, V, and VI
- ASTM C795, Thermal Insulation for Use in Contact with Austenitic Stainless Steel¹
- Nuclear Regulatory Commission Guide 1.36, Non-Metallic Thermal Insulation¹
- Mil. Spec. MIL-DTL-32585, Insulation, Thermal and Acoustic, Fibrous Glass; Types I and II
 - L-1, L-2.5, L-3.7 – Form 2; Facing A
- MIL-I-22023D Insulation Felt, Thermal and Sound Absorbing Felt, Fibrous Glass, Flexible; See MIL-I-22023D Compliance and Variances
- MIL-DTL-I-24244D (Ships) Insulation Material with Special Corrosion, Chloride, and Fluoride Requirements¹; Type XVI
- U.S. Coast Guard Approval No. 164.109, non-combustible Materials
- ASTM E136, Behavior of Materials in a Vertical Tube Furnace at 750°C (non-combustible rating)
- Does not contain the fire retardant decabrominated diphenyl ether (decaBDE)

¹ Preproduction qualification testing complete and on file. Chemical analysis of each production lot required for total conformance.

Applications

Fiberglas™ UtiliCore® L-Series Insulation offers outstanding dimensional stability, allowing ease of handling in fabrication, assembly, and installation of removable and reusable industrial pipe covers.

Fiberglas™ UtiliCore® L-Series is used in:

- Industrial Piping System Insulation Covers

- Valve Insulation Covers
- Flange Insulation Covers
- Exchanger Insulation Covers
- Filter Insulation Covers
- Flow Meter Insulation Covers
- Strainer Insulation Covers

Physical Properties

PROPERTY	TEST METHOD	VALUE
Density	ASTM C167	L-1 – 1.0 pcf (16.1 kg/m ³) L-2.5 – 2.5 pcf (40.1 kg/m ³) L-3.7 – 3.7 pcf (59.3 kg/m ³)
Operating Temperature Range ²	ASTM C411	Rated to 1,000°F (538°C)
Water Vapor Sorption	ASTM C1104	<2% by weight at 120°F (49°C), 95% R.H.
Fungi Resistance	ASTM C1338	Meets requirements
CORROSION RESISTANCE	TEST METHOD	VALUE
Corrosion to Copper and Aluminum	ASTM C665	Pass – cooper and aluminum
Corrosion to Steel	ASTM C1617	Pass
Stress Corrosion Evaluation on External Stress Corrosion Cracking Tendency of Austenitic Stainless Steel	ASTM C795 and ASTM C6921	Pass
Chemical Analysis for Cl-, F-, Na+, SiO ₃	ASTM C795 and ASTM C8711	Results fall within acceptability limits
FIRE	TEST METHOD	VALUE
Surface Burning Characteristics ³	UL 723, ASTM E84, and CAN/ULC S102	UNFACED: Flame Spread Index 0 Smoke Developed Index 0

² Maximum thickness at 1,000°F (538°C) is 2" (50 mm).

³ The surface burning characteristics of these products have been determined in accordance with UL 723, ASTM E84, and CAN/ULC-S102. Values are reported to the nearest 5 rating.

Thermal Conductivity⁴

MEAN TEMPERATURE °F	k (Btu·in/hr·ft ² ·°F)		
	L-1	L-2.5	L-3.7
75 °F	0.24	0.22	0.22
100 °F	0.25	0.23	0.23
200 °F	0.33	0.28	0.26
300 °F	0.42	0.34	0.30
400 °F	0.54	0.42	0.36
500 °F	0.69	0.51	0.42
600 °F	0.88	0.64	0.50

MEAN TEMPERATURE °C	λ W/m·°C		
	L-1	L-2.5	L-3.7
24 °C	0.034	0.031	0.031
38 °C	0.037	0.033	0.033
93 °C	0.047	0.040	0.037
149 °C	0.060	0.049	0.043
204 °C	0.078	0.061	0.052
260 °C	0.099	0.074	0.060
316 °C	0.127	0.092	0.072

⁴ Apparent thermal conductivity values determined in accordance with ASTM practice C1045 with data obtained by ASTM test method C177. Values are nominal, subject to normal testing and manufacturing tolerance.

Table 1: MIL-I-22023D Compliance and Variances⁵

Utilicore products comply to MIL-I-22023D, with the exception of Section 1.2 Classification. Table 1 below aligns the Utilicore product for Type I and Type II Classes.

	DENSITY REQUIRED PCF (LB/FT ³)	UTILICORE® PRODUCT	PRODUCT DENSITY PCF (LB/FT ³)	DENSITY COMPLIANCE
Class 3	1.0	L-1	1.0	Yes
Class 6	3.0	L-2.5	2.5	0.2 pcf below tolerance

⁵ Utilicore® offers no Class 2 product.

Sound Absorption Coefficient, ASTM C423 – Type A Mounting⁶

1/3 OCTAVE BAND CENTER FREQUENCIES, HZ

PRODUCT	THICKNESS (INCHES)	125	250	500	1000	2000	4000	NRC	SAA
L-1	1.0	0.08	0.38	0.76	0.81	0.92	0.96	0.75	0.74
	2.0	0.18	0.75	1.10	1.06	1.00	1.01	1.00	0.97
L-2.5	1.0	0.12	0.46	0.95	1.07	1.04	1.06	0.90	0.88
	2.0	0.32	1.19	1.25	1.17	1.11	1.13	1.20	1.17
L-3.7	1.0	0.12	0.56	1.09	1.16	1.06	1.07	0.95	0.97
	2.0	0.36	1.15	1.16	1.11	1.06	1.10	1.10	1.11

⁶ Nominal samples were measured in accordance with ASTM C423. These measured absorption coefficients were adjusted to values representative of the product with mean specification properties. While these values are an accurate representation of our product, they are for design approximations only. Production, testing, and application variabilities will alter results. Specific designs should be evaluated in end-use configuration.

Availability

Fiberglas™ UtiliCore® L-Series Insulation:

- 1-inch and 2-inch thicknesses

Other thicknesses may be available upon request.

Contact your local Owens Corning sales representative for availability.

Certifications and Sustainable Features

- Certified by SCS Global Services to contain an average of 53% recycled glass content, 31% pre-consumer, and 22% post-consumer.
 - GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage.
- For more information, visit ul.com/gg.



Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at www.owenscorning.com.

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For more information, visit www.SCSglobalservices.com.

Notes

For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via <http://sds.owenscorning.com>.

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