

Incoflex.

THERMAL EFFICIENCY AND DURABILITY
HVAC&R & INDUSTRIAL APPLICATIONS

XLPE



V-10/2025/ENG XLPE CATALOGUE 2025 GLOBAL USE

Closed Cell Crosslinked Polyolefin Foam

INCOFLEX XLPE MECHANICAL INSULATION



Health Care



Residential



Industrial



Commercial



Green Buildings



Oil & Gas

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THERMAL EFFICIENCY AND DURABILITY
HVAC&R & INDUSTRIAL APPLICATIONS

XLPE

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V-10/2025/ENG XLPE CATALOGUE 2025 GLOBAL USE

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THERMAL EFFICIENCY AND DURABILITY
HVAC & INDUSTRIAL APPLICATIONS **XLPE**

Cross-linked closed-cell polyolefin thermal insulation foam

Incoflex XLPE is a high-performance cross-linked polyolefin thermal insulation material designed for superior energy efficiency and durability. It complies with ASTM C1427, ensuring high-quality standards for closed-cell thermal insulation.

This versatile insulation solution is widely used in building and construction, HVAC, refrigeration, plumbing, oil / gas and other industrial applications, providing excellent thermal resistance, moisture resistance, and long-term performance

Reducing CO₂ Emissions Through Superior Thermal Efficiency

Reduces CO₂ Emissions – By improving thermal efficiency and reducing energy demand, Incoflex XLPE helps cut carbon dioxide (CO₂) emissions, supporting global efforts toward environmental sustainability

Health, Environment, and Indoor Air Quality Benefits of Incoflex XLPE

Incoflex XLPE has a minimized volatile organic compound (VOC) emission, contributing to better indoor air quality and a healthier environment.

Unlike some insulation materials, Incoflex XLPE does not release harmful fibers or particles into the air, reducing respiratory risks.

Its closed-cell structure prevents moisture buildup, which helps inhibit the growth of mold, mildew, and bacteria, improving hygiene and air quality.

Produced with environmentally responsible processes, reducing waste and promoting sustainability.

Helps lower energy consumption in HVAC, refrigeration, and plumbing systems, reducing carbon footprints and supporting green building initiatives.

Free from CFCs, HCFCs, and other ozone-depleting substances, making it a safe choice



Fire Performance and International Standards Compliance

Incoflex XLPE is designed to provide enhanced fire safety, complying with international fire protection standards to ensure reliable performance in HVAC, building, and industrial applications.

Low Flammability, Low Smoke and Toxicity Emissions, Self-Extinguishing Properties, NFPA 90A and 90B, Class A FSI<25 and SDI<50 to meet ASTM E84, European fire classification for construction materials BS1D0 as per EN 13501-1, BS 476 Part 6 & 7 – Class 0, and AS/NZS 1530.3 achieving low indices for ignitability, flame spread, heat evolved, and smoke developed.

ASHRAE 90.1 Compliance:

Incoflex XLPE complies with ASHRAE 90.1, the Energy Standard for Buildings, by providing high-performance thermal insulation that effectively reduces heat loss and gain in HVAC systems, pipes, and ducts. Its closed-cell structure significantly enhances thermal resistance (R-value), which helps minimize energy consumption and supports the maintenance of consistent performance in both high and low temperatures.

Features

Superior Thermal Insulation – Provides excellent heat resistance, reducing energy loss.

Moisture and Water Vapor Resistance – Minimizes condensation and prevents mold growth.

Durable and Long-Lasting – Resistant to wear, tear, and environmental factors.

Lightweight & Flexible – Easy to install and adapt to various applications.

Wide Application Range – Ideal for oil & gas, building & construction, HVAC&R, plumbing, and any industry.

Low Thermal Conductivity – Enhances energy efficiency in piping and ductwork.

Resistance against Chemicals and Corrosion – Protects against degradation from chemicals and environmental exposure.

Fire-Retardant Properties – Offers improved safety in construction and industrial settings.

Prevents Corrosion – does not contain halogenated components.

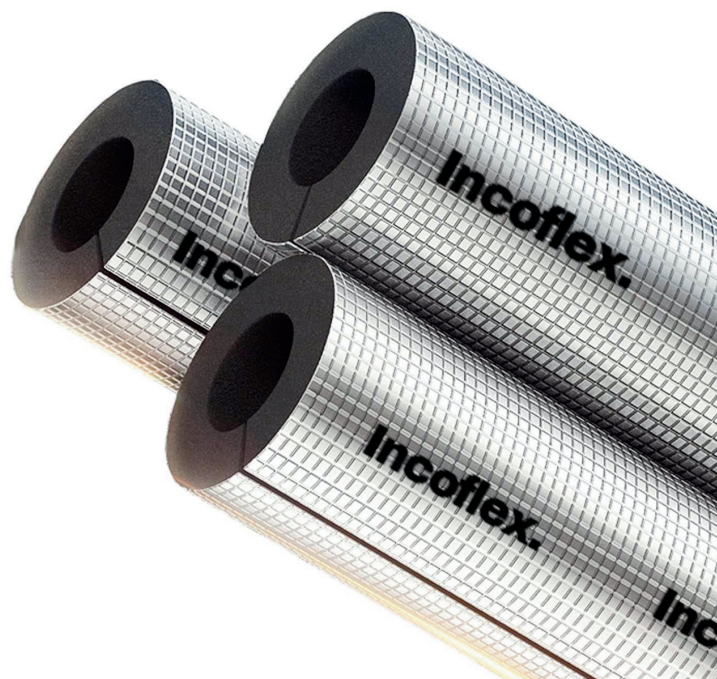
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XLPE PRODUCT RANGE ACCORDING TO ASTM C1427

Preformed Tubular Sections

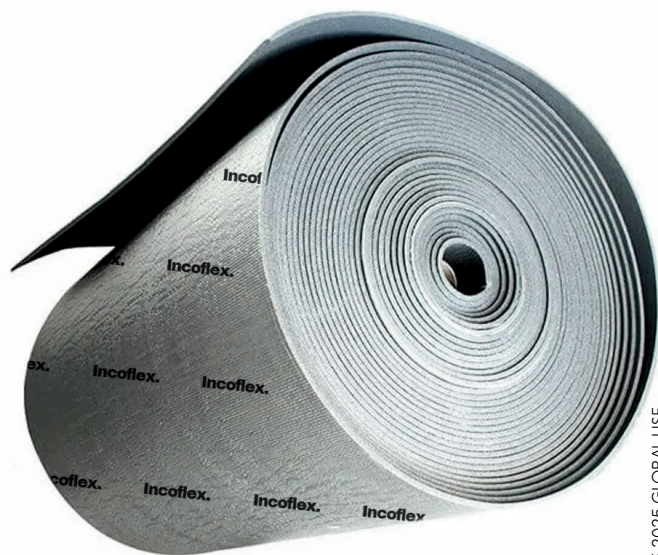
Incoflex XLPE tubes are specifically designed to fit residential, commercial, and industrial pipe installations, including refrigeration, plumbing, chilled water systems, domestic and industrial gas lines, oil and gas, and similar applications. The tubes provide effective thermal insulation, ensuring energy efficiency, and protection against heat loss or gain in these systems. They are easy to install and offer long-lasting performance across various environments, helping maintain system integrity and reduce energy consumption. The tubes are pre-made slit.

Large tube diameters specially designed for large pipe diameters such as pump rooms, cooling districts, gas pipelines, buried-pipes, tunnels, and similar.



Preformed Sheets and Rolls Sections

Incoflex XLPE sheets and rolls are designed for insulation of flat surfaces such as air ducts, tanks, vessels, and other similar applications. They are also suitable for pipes with outer diameters larger than 28" (711.00mm), as well as for circular air ducts, spherical and cylindrical tanks and vessels, heat exchangers, energy recovery units, and other similar systems. These flexible and durable sheets and rolls provide excellent thermal insulation, energy efficiency, and long-lasting performance in diverse industrial, commercial, and residential applications. The sheets and rolls are made with or without self-adhesive.



Note: Tolerances for tubes, sheets, and rolls are in accordance with ASTM C1427 standards. For detailed specifications and precise tolerance information, please refer to the Technical Data Sheet.

Incoflex. XLPE

PRODUCT RANGE

SPECIALIZED SOLUTIONS

Incoflex XLPE UF - Unfaced Tubes and Sheets



Incoflex Unfaced XLPE insulation is preferred in applications where:

- Flexible Installation
- No Vapor Barrier Needed
- Cost-Effective Solution
- Multilayer Installation

Available in tubular and planar sections for pipes, ducts, tanks and vessels.

Recommended for outdoor installations with additional site-applied weather resistance jacketing or coating.

Incoflex XLPE AP - Aluminum Foil-faced



Incoflex XLPE AP tubes and sheets offer improved thermal efficiency, moisture resistance, and durability.

- Improved Thermal Efficiency
- Built-in Vapor Barrier
- Durability & Protection

Easy to Clean & Maintain

Ideal for Indoor & High-Humidity Applications. Recommended for HVAC ducts, chilled water lines, and refrigeration systems.

Meets fire reaction requirements for HVAC, building, and construction applications.

Recommended for outdoor installations with additional site-applied weather resistance jacketing or coating.

Incoflex[®] XLPE

PRODUCT RANGE

SPECIALIZED SOLUTIONS

Incoflex XLPE RE - Reinforced Aluminum Foil Facer



Incoflex XLPE RE – Engineered for extreme conditions, providing durable, high-performance insulation:

Reinforced Mechanical Strength

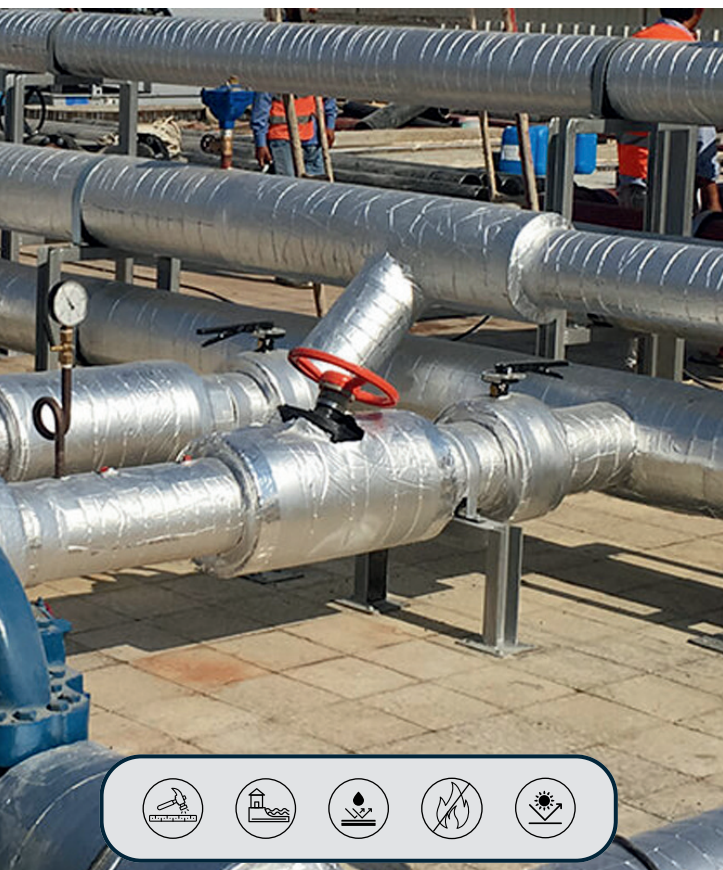
Long-Term Durability – Maintains thermal performance and structural integrity over time.

Strict Fire Safety Compliance – Meets very stringent fire requirements set by international building codes and life & fire safety standards.

Versatile Application – Ideal for plant rooms, exposed mechanical systems, underground tunnels, cooling districts, industrial applications, oil & gas, and heavy industries.

Recommended for outdoor installations with additional site-applied weather resistance jacketing or coating.

Incoflex XLPE NCLAD - Pre-clad Foil Facer



Incoflex XLPE N-CLAD – A high-performance, pre-clad insulation that provides built-in weather resistance, eliminating the need for additional on-site jacketing or coatings.

Pre-cladded – Provides extra mechanical protection against impacts.

Superior Fire Reaction – Meets strict fire safety standards for all applications.

Moisture & Vapor Barrier – Prevents condensation and corrosion in HVAC.

Weather & UV Resistance – Suitable for exposed applications, including outdoor and high-humidity environments.

No Additional Jacketing Required – Comes with a factory-applied protective layer, eliminating the need for extra on-site coatings or weatherproofing.

Versatile Industrial Use – Ideal for HVAC, cooling districts, buried systems, underground tunnels, oil & gas, and heavy industries.

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XLPE PRODUCT RANGE

SPECIALIZED SOLUTIONS

Tubes Size Chart

XLPE AT 10 06

Type of Material: XLPE

Facer and Form
 A: Aluminum
 P: Plain - Unfaced
 N: NCLAD
 T: Tubular Form

Wall thickness (mm)

Inner Diameter (mm)

Pipe Size				10mm (3/8")			12mm (1/2")			15mm (5/8)			20mm (3/4)			25mm (1")			30mm (1 1/8")		
Copper		Carbon Steel																			
OD (Inch)	OD (mm)	NPS (Inch)	OD (mm)																		
1/4	6.35			XLPEAT	10	6	XLPEAT	12	6	XLPEAT	15	6	XLPEAT	20	6	XLPEAT	25	6	XLPEAT	30	6
3/8	9.52			XLPEAT	10	9	XLPEAT	12	9	XLPEAT	15	9	XLPEAT	20	9	XLPEAT	25	9	XLPEAT	30	9
1/2	12.70			XLPEAT	10	12	XLPEAT	12	12	XLPEAT	15	12	XLPEAT	20	12	XLPEAT	25	12	XLPEAT	30	12
5/8	15.88	1/4	13.70	XLPEAT	10	16	XLPEAT	12	16	XLPEAT	15	16	XLPEAT	20	16	XLPEAT	25	16	XLPEAT	30	16
3/4	19.05			XLPEAT	10	20	XLPEAT	12	20	XLPEAT	15	20	XLPEAT	20	20	XLPEAT	25	20	XLPEAT	30	20
7/8	22.22	1/2	21.3	XLPEAT	10	22	XLPEAT	12	22	XLPEAT	15	22	XLPEAT	20	22	XLPEAT	25	22	XLPEAT	30	22
1	25.40			XLPEAT	10	25	XLPEAT	12	25	XLPEAT	15	25	XLPEAT	20	25	XLPEAT	25	25	XLPEAT	30	25
1-1/8	28.58	3/4	26.70	XLPEAT	10	28	XLPEAT	12	28	XLPEAT	15	28	XLPEAT	20	28	XLPEAT	25	28	XLPEAT	30	28
	32.00			XLPEAT	10	32	XLPEAT	12	32	XLPEAT	15	32	XLPEAT	20	32	XLPEAT	25	32	XLPEAT	30	32
1-3/8	34.93	1	33.70	XLPEAT	10	35	XLPEAT	12	35	XLPEAT	15	35	XLPEAT	20	35	XLPEAT	25	35	XLPEAT	30	35
	38.00			XLPEAT	10	38	XLPEAT	12	38	XLPEAT	15	38	XLPEAT	20	38	XLPEAT	25	38	XLPEAT	30	38
1-5/8	41.28	1-1/4	42.20	XLPEAT	10	42	XLPEAT	12	42	XLPEAT	15	42	XLPEAT	20	42	XLPEAT	25	42	XLPEAT	30	42
1-7/8	48.00	1-1/2	48.30	XLPEAT	10	48	XLPEAT	12	48	XLPEAT	15	48	XLPEAT	20	48	XLPEAT	25	48	XLPEAT	30	48
				XLPEAT	10	50	XLPEAT	12	50	XLPEAT	15	50	XLPEAT	20	50	XLPEAT	25	50	XLPEAT	30	50
2-1/8	53.98			XLPEAT	10	54	XLPEAT	12	54	XLPEAT	15	54	XLPEAT	20	54	XLPEAT	25	54	XLPEAT	30	54
2-3/8	60.30	2	60.30	XLPEAT	10	60	XLPEAT	12	60	XLPEAT	15	60	XLPEAT	20	60	XLPEAT	25	60	XLPEAT	30	60
				XLPEAT	10	65	XLPEAT	12	65	XLPEAT	15	65	XLPEAT	20	65	XLPEAT	25	65	XLPEAT	30	65
3	76.00	2-1/2	73.00	XLPEAT	10	75	XLPEAT	12	75	XLPEAT	15	75	XLPEAT	20	75	XLPEAT	25	75	XLPEAT	30	75
3-1/8	79.00			XLPEAT	10	80	XLPEAT	12	80	XLPEAT	15	80	XLPEAT	20	80	XLPEAT	25	80	XLPEAT	30	80
3-1/2	89.00	3	88.90	XLPEAT	10	90	XLPEAT	12	90	XLPEAT	15	90	XLPEAT	20	90	XLPEAT	25	90	XLPEAT	30	90
4	102.00			XLPEAT	10	102	XLPEAT	12	102	XLPEAT	15	102	XLPEAT	20	102	XLPEAT	25	102	XLPEAT	30	102
				XLPEAT	10	110	XLPEAT	12	110	XLPEAT	15	110	XLPEAT	20	110	XLPEAT	25	110	XLPEAT	30	110
4-1/2	114.00	4	114.30	XLPEAT	10	115	XLPEAT	12	115	XLPEAT	15	115	XLPEAT	20	115	XLPEAT	25	115	XLPEAT	30	115
				XLPEAT	10	125	XLPEAT	12	125	XLPEAT	15	125	XLPEAT	20	125	XLPEAT	25	125	XLPEAT	30	125
		5	141.30	XLPEAT	10	140	XLPEAT	12	140	XLPEAT	15	140	XLPEAT	20	140	XLPEAT	25	140	XLPEAT	30	140
				XLPEAT	10	160	XLPEAT	12	160	XLPEAT	15	160	XLPEAT	20	160	XLPEAT	25	160	XLPEAT	30	160
		6	168.30	XLPEAT	10	168	XLPEAT	12	168	XLPEAT	15	168	XLPEAT	20	168	XLPEAT	25	168	XLPEAT	30	168

Pipe Size				35mm (1 3/8")			40mm (1 5/8")			50mm (2")		
Copper		Carbon Steel										
OD (Inch)	OD (mm)	NPS (Inch)	OD (mm)									
1/4	6.35			XLPEAT	35	6	XLPEAT	40	6	XLPEAT	50	6
3/8	9.52			XLPEAT	35	9	XLPEAT	40	9	XLPEAT	50	9
1/2	12.70			XLPEAT	35	12	XLPEAT	40	12	XLPEAT	50	12
5/8	15.88	1/4	13.70	XLPEAT	35	16	XLPEAT	40	16	XLPEAT	50	16
3/4	19.05			XLPEAT	35	20	XLPEAT	40	20	XLPEAT	50	20
7/8	22.22	1/2	21.3	XLPEAT	35	22	XLPEAT	40	22	XLPEAT	50	22
1	25.40			XLPEAT	35	25	XLPEAT	40	25	XLPEAT	50	25
1-1/8	28.58	3/4	26.70	XLPEAT	35	28	XLPEAT	40	28	XLPEAT	50	28
	32.00			XLPEAT	35	32	XLPEAT	40	32	XLPEAT	50	32
1-3/8	34.93	1	33.70	XLPEAT	35	35	XLPEAT	40	35	XLPEAT	50	35
	38.00			XLPEAT	35	38	XLPEAT	40	38	XLPEAT	50	38
1-5/8	41.28	1-1/4	42.20	XLPEAT	35	42	XLPEAT	40	42	XLPEAT	50	42
1-7/8	48.00	1-1/2	48.30	XLPEAT	35	48	XLPEAT	40	48	XLPEAT	50	48
				XLPEAT	35	50	XLPEAT	40	50	XLPEAT	50	50
2-1/8	53.98			XLPEAT	35	54	XLPEAT	40	54	XLPEAT	50	54
2-3/8	60.30	2	60.30	XLPEAT	35	60	XLPEAT	40	60	XLPEAT	50	60
				XLPEAT	35	65	XLPEAT	40	65	XLPEAT	50	65
3	76.00	2-1/2	73.00	XLPEAT	35	75	XLPEAT	40	75	XLPEAT	50	75
3-1/8	79.00			XLPEAT	35	80	XLPEAT	40	80	XLPEAT	50	80
3-1/2	89.00	3	88.90	XLPEAT	35	90	XLPEAT	40	90	XLPEAT	50	90
4	102.00			XLPEAT	35	102	XLPEAT	40	102	XLPEAT	50	102
				XLPEAT	35	110	XLPEAT	40	110	XLPEAT	50	110
4-1/2	114.00	4	114.30	XLPEAT	35	115	XLPEAT	40	115	XLPEAT	50	115
				XLPEAT	35	125	XLPEAT	40	125	XLPEAT	50	125
		5	141.30	XLPEAT	35	140	XLPEAT	40	140	XLPEAT	50	140
				XLPEAT	35	160	XLPEAT	40	160	XLPEAT	50	160
		6	168.30	XLPEAT	35	168	XLPEAT	40	168	XLPEAT	50	168

Sheets/Rolls Size Chart

Thickness		Length		Code
Inch	mm	ft	m	
1/8	3	65.6	20	XLPEAS03200
1/4	5	65.6	20	XLPEAS05200
3/8	10	65.6	20	XLPEAS10200
1/2	12	65.6	20	XLPEAS12200
5/8	15	65.6	20	XLPEAS15200
3/4	20	65.6	20	XLPEAS20200
1	25	8	2.4	XLPEAS24024
1 1/8	30	8	2.4	XLPEAS30024
1 3/8	35	8	2.4	XLPEAS35024
1 1/2	40	8	2.4	XLPEAS40024
2	50	8	2.4	XLPEAS50024

Other sizes not listed in these tables may be available upon request. Please contact your local representative or reach out to our technical team at technical@incotecgroup.com or enquiry@incotecgroup.com for more information.

All dimensional tolerances are in accordance with ASTM C1427.

XLPE AS 50 110

Type of Material: XLPE

Facer and Form

P: Plain - Unfaced

A: Aluminum

N: NCLAD

S: Sheets & Rolls

SA: Self-Adhesive

Wall thickness (mm)

Length of sheet (cm)

Incoflex.XLPE ACCESSORIES

A comprehensive range of accessories providing solutions for a successful installation

Adhesive

Incoflex Adhesives is an effective option for installing Incoflex XLPE thermal insulation. It is specially designed to securely bond this material, providing a durable, moisture-resistant seal. Additionally, its use helps ensure compliance with the system's warranty.

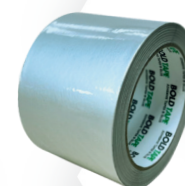


Tapes

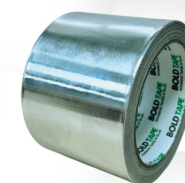
Incoflex XLPE Foam Tape specially designed for unfaced thermal insulation foam, ideally to cover butt-joints between two tubes or two ducts. Foam tape has a hot-melt strong adhesive, and carried on siliconized release paper. The tape has excellent flexibility and suitable for insulation & duct gasket purpose.



Incoflex Alupet Tape specially designed for XLPE AP aluminum foil faced and XLPE RE thermal insulation foams, ideally to cover butt-joints between two tubes or two ducts. PVC film as backing, combined with a high performance solvent acrylic adhesive, protected by an easy release white PE coated release paper.



Incoflex Aluminum Tape specially designed for XLPE N-CLAD thermal insulation foam, ideally to cover butt-joints between two tubes or two ducts. It is available in 18, 22, 30 & 50u, 75u thicknesses, solvent acrylic adhesive. Available with and without liner.



IncoSOFT - Calculation Software

IncoSOFT is a specialized engineering tool developed by Incotec Group to determine the optimal insulation thickness for cooling systems. It is designed to ensure efficient thermal performance and energy savings by evaluating:

- Condensation prevention on external surfaces
- Reduction of heat loss or gain
- Stabilization of flow medium temperature
- Precise calculation of energy and electricity consumption
- Estimation of carbon emissions and energy savings.

IncoSOFT.
Developed in compliance with ISO 12241

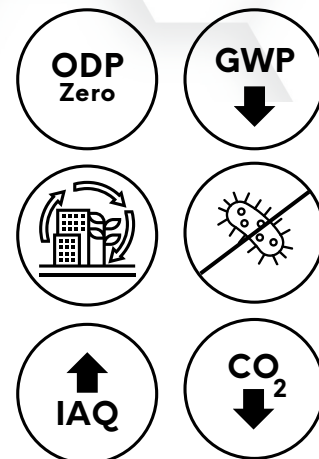
Incoflex[®] XLPE STANDARD SPECIFICATION

PROPERTY	VALUE / RESULT	STANDARD TEST METHOD
Density ¹	1.5 to 2.5 lb/ft ³ (25 to 40 Kg/m ³)	ASTM C1427
Service Temperature (foam only)	from -58°F to 230°F (-50°C to 120°C)	ASTM C177
Thermal Conductivity at mean temperature BTU·in/h·ft ² ·°F (W/mK)	50°F (10°C) 0.22 (0.032) 75°F (23°C) 0.23 (0.033) 95°F (35°C) 0.24 (0.036) 113°F (45°C) 0.26 (0.038)	ASTM C518 / ASTM C177
Water Vapour Transmission	≤ 7.29x10 ⁻⁹ g/Pa.s.m	ASTM E96
Water Vapour Permeance	≤ 0.63 x 10 ⁻¹¹ g/Pa.s.m ²	ASTM E96
Water Vapour Permeability	0.05 perm-inch	ASTM E96
Vapour Diffusion Resistance Factor (μ)	> 80,000	BS EN 12086
Water Absorption (Liquid phase)	< 0.1% (by volume)	ASTM C209
Resistance To Fungi	No Growth	ASTM G21
Resistance To Bacteria	No Growth	ASTM G22
CFC & HCFC Free	Comply	USEPA 8260 B
VOC Level (Green Star Rating)	Low VOC Emitting	ASTM D5116
FIRE AND SMOKE PERFORMANCE		
Surface Burning Characteristics***	Class A (FSI<25 and SDI<50)	ASTM E84
Surface Spread of Flame***	Class 0	BS 476 part 6 and 7
Classification of Reaction to Fire**	B-s1,d0	EN 13501-1
Fire Test on Building Materials**	0, 0, 0, 1	AS/NZS 1530.3
Fire Hazard Properties**	Group 2	ISO 5660 / AS 5637.1 & AS NZS 3837
VOC Emissions	TVOC's ≤ 0.5 mg/m ² /h Formaldehyde: ≤ 0.05 ppm Individual VOCs: ≤ 0.05 ppm for specific VOCs	CDPH VI.2 LEED VI.4 GREENGUARD

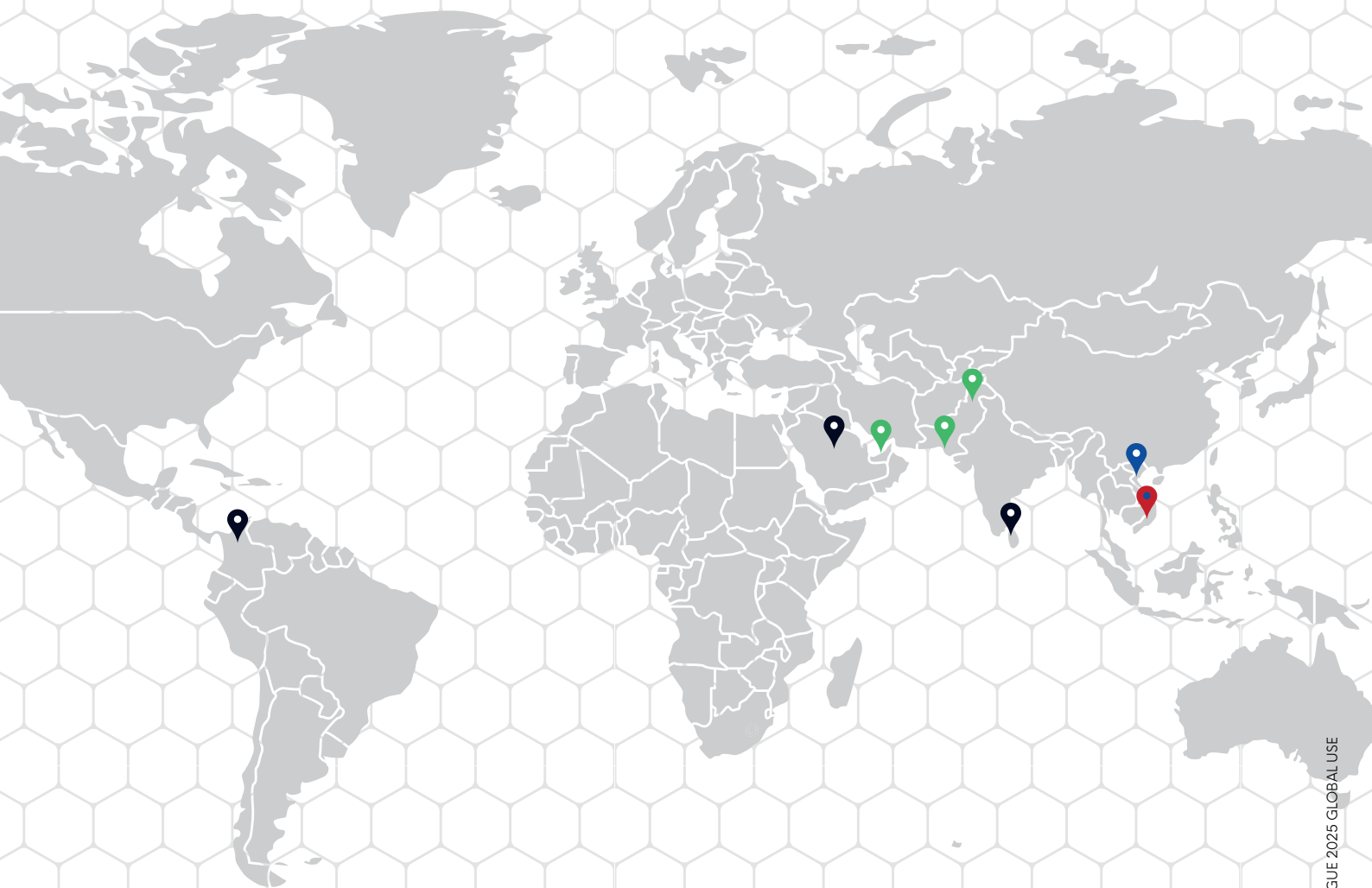
¹According to ASTM C1427, density is not a performance property, and should be considered as a reference only.

Storage Instruction	Storage in dry, clean room (Below 40oC And 50~70% RH) Do not expose to direct sunlight Avoid dusty environments
Warranty of Incoflex XLPE	Upto 10 Years following instalation instructions

Please consult the individual Technical Data Sheet for each product model for further information. If you have any questions regarding the products, technical specifications, or require further details, please contact our technical support team at technical@incotecgroup.com or enquiry@incotecgroup.com



Let's chat!



Factory and Sales Office



Factory



Warehouse and Sales Office



Sales Office

INCOTEC INDUSTRIES LLC

15 Lam Son, Ward 5, Phu Nhuan Dist.

Ho Chi Minh City, Vietnam

+ 84 909 071 835

enquiry@incotecgroup.com

www.incotecgroup.com

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incotec

Manufacturer of HVAC/R Solutions

WE KNOW HOW!