



A CSW Industrials Company

PRODUCT DATA SHEET

K-FLEX® TITAN™

Closed-cell, flexible, elastomeric foam insulation



Description

K-FLEX® TITAN™ is a flexible coextruded jacketed composite material applied to K-FLEX® NBR/ PVC tubular insulation. It is a polymeric jacketed material that offers excellent flexibility, abrasion and weather resistance, making it ideal for outdoor applications. The product is made in K-FLEX® USA's ISO 9001 certified manufacturing facility in North Carolina. The expanded closed-cell structure and unique formulation inherently resists moisture vapor intrusion. Excellent UV resistance and protection from weather and protection from mechanical abuse, including incidental impact from lawn equipment.

Applications

K-FLEX® TITAN™ can be used for outdoor applications with service temperatures ranging from -70°F to +220°F. The product is used to enhance the weather and abuse resistance of the insulation tubing. K-FLEX® TITAN™ is ideal for use on HVAC linesets and flex hose applications.

Installation

1-Step Install: No field applied protective coating or additional jacketing required.

K-FLEX® TITAN™ is durable (nonfracturing) and the skin is resistant to tearing from handling and the environment, safe to handle (nonstinging and non-abrasive), and lightweight for an efficient installation. It is very flexible and easily conforms to bends. Its low modulus allows it to be pushed back for easy installation of fittings.

K-FLEX® recommends that insulation is installed on non-operational systems with clean, dry surfaces in ambient conditions between 40°F and 100°F.

Properly sized insulation tubing can be slid over piping (tubing should be pushed, not pulled). All seams, butt joints, termination points and open ends should be sealed with an approved contact adhesive, making sure both surfaces to be joined are coated. Vapor stops should be installed as needed. K-FLEX® TITAN™ may be slit longitudinally for retrofit applications. ASTM C1710, Installation Guide for Flexible Closed Cell Foams, and the K-FLEX® Installation Manual should be used as comprehensive installation guides.

Characteristics | Features

- 2012 IECC
Section R403.3.1 (residential)
Section C403.2.8 (commercial)
- 2015 and 2018 IECC
Section R403.4.1 (residential)
Section C403.2.10.1 (commercial)
- 2012, 2015 and 2018 IRC
Section N1103.4.1
- 2016 California Energy Code, Part 6
Subchapter 3, Section 120.3
- ASTM E84 25/50-rated (to 1-1/2")
CAN/ULC S102.2 – 25/50 rated
- UL 94-5V Flammability Classification
(Recognition No. E300774)
- NFPA 90 A - 90 B

Packaging

Code	Size	Qty. per Case	Lbs. per Case	Cubic Ft per Case
83032	5/8" x 1/2" x 120'	1	10	4.00
83033	5/8" x 3/4" x 60'	1	8	4.00
83034	3/4" x 1/2" x 75'	1	7	4.00
83035	3/4" x 3/4" x 60'	1	8	4.00
83036	7/8" x 1/2" x 75'	1	9	4.00
83037	7/8" x 3/4" x 50'	1	9	4.00

Technical Data

Physical Properties	Test Methods
Main Composition	-
Thermal Conductivity 75°F (24°C) Mean Temp (Btu-in/hr-Ft ² -°F)	ASTM C177
Density	ASTM D1667
Operating Temperature Range	ASTM C534
Water Vapor Permeability (Dry Cup) (Core Material Only)	ASTM E96
Water Vapor Permeance	ASTM E96
Dimensional Stability	ASTM C534
Corrosion Risk	DIN 1988
UV Resistance (Artificial Aging) (Jacket Material)	ASTM G153 ASTM G154 tested to 3,000 hours
Flammability	ASTM E84 UL 94
Tensile Strength	ASTM D412
Elongation	ASTM D412
Hot surface Performance at 250°F (121°C)	ASTM C411 NFPA 90 A

* For applications below -40°F (-40°C), contact K-FLEX® technical support.

Thickness Recommendations - To Prevent Condensation

Service Temperature	-20°F (-29°C)	50°F (10°C)
3/8" ID to 1-1/2" ID	1"	1/2"
1-1/2" IPS to 2-7/8" IPS	1"	1/2"

Thickness listed for the specified ranges will prevent condensation on indoor piping under the defined design conditions. Normal: 85°F and 70% R.H.

For Energy Conservation (ASHRAE 90.1 - 2010)

Nominal Pipe or Tube Size, Inches	< 40°F < 4.4°C	40-60 °F 4.4-15.6°C	105-140 °F 40.6-60 °C	141-200°F 60.6-93.3°C
< 1"	0.5	0.5	1.0	1.5
1" to 1 1/2"	1.0	0.5	1.0	1.5
1 1/2" to 4"	1.0	1.0	1.5	2.0

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Manufactured by

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