

# AEROFOAM<sup>®</sup> - XLPE N CLAD



## *Cross-Linked Closed Cell Polyolefin Thermal Insulation Foam for Indoor & Outdoor Applications*

**CLASS 0**

**ASTM E84**

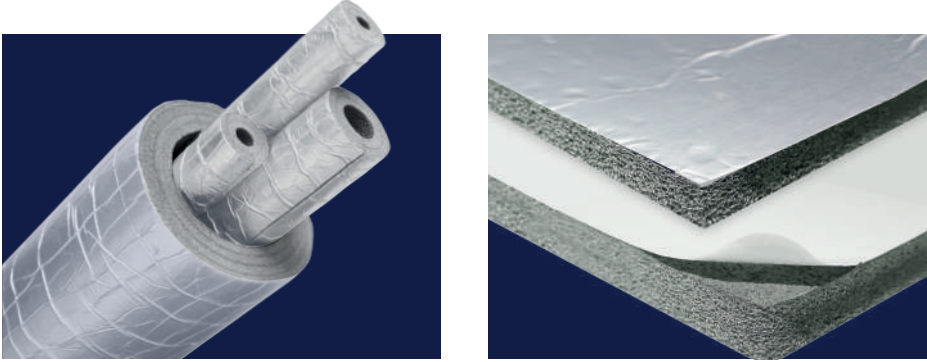
**AS 1530.3 TESTED**

 [www.aerofoamvietnam.com](http://www.aerofoamvietnam.com)













# AEROFOAM® XLPE N CLAD TUBES & SHEETS

Aerofoam® XLPE N Clad is your 2-in-1 innovative solution offering energy savings combined with reliable weathering protection and it can be used in specific applications such as pharmaceutical, food and beverages, healthcare, data centers, industrial and marine.

Aerofoam® XLPE N Clad is easy to install and offers time savings of more than 50% compared to non-factory applied jacketing systems such as metal sheets or painted canvas cloths.



## FEATURES

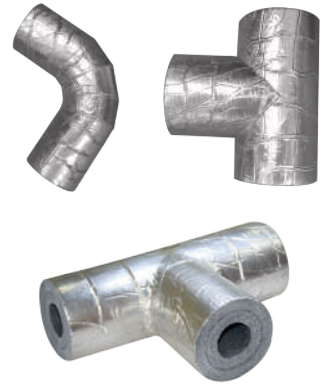
-  Excellent thermal efficiency
-  High mechanical strength & durability
-  Suitable for cooling & heating systems
-  UV & weather resistant
-  Suitable for application in coastal areas
-  Chemical resistant
-  Resistant to mold & mildew growth
-  Resistant to bacteria growth
-  Environmental friendly foam
-  Ozone resistant
-  No corrosion risk
-  No additional coating needed

## APPLICATIONS

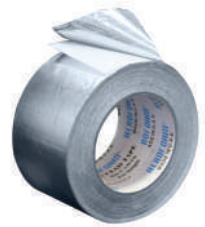


# AERO-FITTINGS

Pre-fabricated Aero-fittings are made in different shapes such as 90 and 45 degrees Elbows, Tees and Y-Branches.



## AEROFOAM® TAPE



Aerofoam® Tape N Clad

## AEROFOAM® XLPE GLUE



## AEROCALC

**AEROCALC** software is an excellent tool for calculating the most optimal thicknesses of insulation. Available as **Desktop, iOS and Android** applications.

Visit our website: [aerofoamvietnam.com](http://aerofoamvietnam.com)



Scan the QR code to download the Desktop app.



# AEROFOAM® XLPE N CLAD TUBES - SIZE RANGE

| Copper pipes for AC & Refrigeration |         | Steel Pipe      |         | Aerofoam® XLPE N Clad Nominal ID |     | Aerofoam® XLPE N Clad Tubes Size Range |        |        |        |        |        |        |        |        |        |        |
|-------------------------------------|---------|-----------------|---------|----------------------------------|-----|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| OD [inch]                           | OD [mm] | Nom size [inch] | OD [mm] | inch                             | mm  | 10                                     | 12     | 15     | 20     | 25     | 30     | 32     | 35     | 40     | 50     | 60     |
| 1/4"                                | 6.35    |                 |         | 1/4"                             | 6   | 10x06                                  | 12x06  | 15x06  | 20x06  | 25x06  | 30x06  | 32x06  | 35x06  | 40x06  |        |        |
| 3/8"                                | 9.52    |                 |         | 3/8"                             | 9   | 10x09                                  | 12x09  | 15x09  | 20x09  | 25x09  | 30x09  | 32x09  | 35x09  | 40x09  |        |        |
| 1/2"                                | 12.70   |                 |         | 1/2"                             | 13  | 10x13                                  | 12x13  | 15x13  | 20x13  | 25x13  | 30x13  | 32x13  | 35x13  | 40x13  | 50x13  | 60x13  |
| 5/8"                                | 15.88   | 1/4"            | 13.70   | 5/8"                             | 16  | 10x16                                  | 12x16  | 15x16  | 20x16  | 25x16  | 30x16  | 32x16  | 35x16  | 40x16  | 50x16  | 60x16  |
| 3/4"                                | 19.05   |                 |         | 3/4"                             | 20  | 10x20                                  | 12x20  | 15x20  | 20x20  | 25x20  | 30x20  | 32x20  | 35x20  | 40x20  | 50x20  | 60x20  |
| 7/8"                                | 22.22   | 1/2"            | 21.3    | 7/8"                             | 22  | 10x22                                  | 12x22  | 15x22  | 20x22  | 25x22  | 30x22  | 32x22  | 35x22  | 40x22  | 50x22  | 60x22  |
| 1"                                  | 25.40   |                 |         | 1"                               | 25  | 10x25                                  | 12x25  | 15x25  | 20x25  | 25x25  | 30x25  | 32x25  | 35x25  | 40x25  | 50x25  | 60x25  |
| 1-1/8"                              | 28.58   | 3/4"            | 26.70   | 1-1/8"                           | 28  | 10x28                                  | 12x28  | 15x28  | 20x28  | 25x28  | 30x28  | 32x28  | 35x28  | 40x28  | 50x28  | 60x28  |
|                                     |         |                 |         | 1-1/4"                           | 32  | 10x32                                  | 12x32  | 15x32  | 20x32  | 25x32  | 30x32  | 32x32  | 35x32  | 40x32  | 50x32  | 60x32  |
| 1-3/8"                              | 34.93   | 1"              | 33.70   | 1-3/8"                           | 35  | 10x35                                  | 12x35  | 15x35  | 20x35  | 25x35  | 30x35  | 32x35  | 35x35  | 40x35  | 50x35  | 60x35  |
|                                     |         |                 |         | 1-1/2"                           | 40  | 10x40                                  | 12x40  | 15x40  | 20x40  | 25x40  | 30x40  | 32x40  | 35x40  | 40x40  | 50x40  | 60x40  |
| 1-5/8"                              | 41.28   | 1-1/4"          | 42.20   | 1-5/8"                           | 43  | 10x43                                  | 12x43  | 15x43  | 20x43  | 25x43  | 30x43  | 32x43  | 35x43  | 40x43  | 50x43  | 60x43  |
| 1-7/8"                              | 48.00   | 1-1/2"          | 48.30   | 1-7/8"                           | 48  | 10x48                                  | 12x48  | 15x48  | 20x48  | 25x48  | 30x48  | 32x48  | 35x48  | 40x48  | 50x48  | 60x48  |
|                                     |         |                 |         | 2"                               | 50  | 10x50                                  | 12x50  | 15x50  | 20x50  | 25x50  | 30x50  | 32x50  | 35x50  | 40x50  | 50x50  | 60x50  |
| 2-1/8"                              | 53.98   |                 |         | 2-1/8"                           | 54  | 10x54                                  | 12x54  | 15x54  | 20x54  | 25x54  | 30x54  | 32x54  | 35x54  | 40x54  | 50x54  | 60x54  |
| 2-3/8"                              | 60.30   | 2"              | 60.30   | 2-3/8"                           | 60  | 10x60                                  | 12x60  | 15x60  | 20x60  | 25x60  | 30x60  | 32x60  | 35x60  | 40x60  | 50x60  | 60x60  |
|                                     |         |                 |         |                                  | 75  | 10x75                                  | 12x75  | 15x75  | 20x75  | 25x75  | 30x75  | 32x75  | 35x75  | 40x75  | 50x75  | 60x75  |
| 3"                                  | 76.00   | 2-1/2"          | 73.00   | 3"                               | 77  | 10x77                                  | 12x77  | 15x77  | 20x77  | 25x77  | 30x77  | 32x77  | 35x77  | 40x77  | 50x77  | 60x77  |
| 3-1/8"                              | 79.00   |                 |         |                                  | 80  | 10x80                                  | 12x80  | 15x80  | 20x80  | 25x80  | 30x80  | 32x80  | 35x80  | 40x80  | 50x80  | 60x80  |
| 3-1/2"                              | 89.00   | 3"              | 88.9    | 3-1/2"                           | 90  | 10x90                                  | 12x90  | 15x90  | 20x90  | 25x90  | 30x90  | 32x90  | 35x90  | 40x90  | 50x90  | 60x90  |
| 4"                                  | 102.00  |                 |         | 4"                               | 102 | 10x102                                 | 12x102 | 15x102 | 20x102 | 25x102 | 30x102 | 32x102 | 35x102 | 40x102 | 50x102 | 60x102 |
|                                     |         |                 |         |                                  | 110 | 10x110                                 | 12x110 | 15x110 | 20x110 | 25x110 | 30x110 | 32x110 | 35x110 | 40x110 | 50x110 | 60x110 |
| 4-1/2"                              | 114.00  | 4"              | 114.30  |                                  | 115 | 10x115                                 | 12x115 | 15x115 | 20x115 | 25x115 | 30x115 | 32x115 | 35x115 | 40x115 | 50x115 | 60x115 |
|                                     |         |                 |         |                                  | 125 | 10x125                                 | 12x125 | 15x125 | 20x125 | 25x125 | 30x125 | 32x125 | 35x125 | 40x125 | 50x125 | 60x125 |
|                                     |         | 5"              | 141.30  |                                  | 140 |  |        |        | 20x140 | 25x140 | 30x140 | 32x140 | 35x140 | 40x140 | 50x140 | 60x140 |
|                                     |         |                 |         |                                  | 160 |  |        |        | 20x160 | 25x160 | 30x160 | 32x160 | 35x160 | 40x160 | 50x160 | 60x160 |
|                                     |         | 6"              | 168.30  |                                  | 168 |  |        |        | 20x168 | 25x168 | 30x168 | 32x168 | 35x168 | 40x168 | 50x168 | 60x168 |
|                                     |         | 8"              | 219.10  |                                  | 220 |  |        |        | 20x220 | 25x220 | 30x220 | 32x220 | 35x220 | 40x220 | 50x220 | 60x220 |
|                                     |         | 10"             | 273.00  |                                  | 273 |  |        |        | 20x273 | 25x273 | 30x273 | 32x273 | 35x273 | 40x273 | 50x273 | 60x273 |
|                                     |         | 12"             | 323.80  |                                  | 323 |  |        |        | 20x323 | 25x323 | 30x323 | 32x323 | 35x323 | 40x323 | 50x323 | 60x323 |
|                                     |         | 14"             | 355.60  |                                  | 356 |  |        |        | 20x356 | 25x356 | 30x356 | 32x356 | 35x356 | 40x356 | 50x356 | 60x356 |
|                                     |         | 16"             | 406.40  |                                  | 406 |  |        |        | 20x406 | 25x406 | 30x406 | 32x406 | 35x406 | 40x406 | 50x406 | 60x406 |
|                                     |         | 18"             | 457.00  |                                  | 457 |  |        |        | 20x457 | 25x457 | 30x457 | 32x457 | 35x457 | 40x457 | 50x457 | 60x457 |
|                                     |         |                 |         |                                  | 600 |  |        |        | 20x600 | 25x600 | 30x600 | 32x600 | 35x600 | 40x600 | 50x600 | 60x600 |
|                                     |         | 24"             | 610.00  |                                  | 609 |  |        |        | 20x609 | 25x609 | 30x609 | 32x609 | 35x609 | 40x609 | 50x609 | 60x609 |
|                                     |         | 28"             | 711.00  |                                  | 711 |  |        |        | 20x711 | 25x711 | 30x711 | 32x711 | 35x711 | 40x711 | 50x711 | 60x711 |

Note: Length of tubes: 1.5 m or 1.8 m for ID up to 160 mm, 1.2 m for ID above 160 mm

# AEROFOAM® XLPE N CLAD SHEETS - SIZE RANGE

|  | Thickness (mm)                 | Thickness (inches)                               | Size          |
|--|--------------------------------|--|---------------|
| Aerofoam® XLPE N Clad Sheets with or without self adhesive | 12, 15, 20, 25, 30, 35, 40, 50 | 1/2", 5/8", 3/4", 1", 1-1/4", 1-3/8", 1-1/2", 2" | 1.2 m x 2.4 m |

| Tolerances - Tubes (foam core only) |                             |
|-------------------------------------|-----------------------------|
| Internal Diameter (ID)              | ≤6-50 mm: -1 mm, 1.5 mm     |
|                                     | 54-160 mm: -1.5 mm, +2.5 mm |
|                                     | ≥160 mm: -2 mm, +3.5 mm     |
| Thickness                           | ≤10-25 mm: ± 1.5 mm         |
|                                     | 30-50 mm: -2 mm, + 3.5 mm   |
| Length                              | ± 20 mm                     |

| Tolerances - Sheets |                     |                            |
|---------------------|---------------------|----------------------------|
| Thickness           | Thickness tolerance | Length and width tolerance |
| <25 mm              | ±1.5 mm             |                            |
| ≥25 mm              | -2 mm, +3.5 mm      |                            |

High mechanical strength & durability

Excellent thermal performance

UV & weather resistant foil



# TECHNICAL DATA

**Description:** Flexible cross-linked closed cell polyolefin thermal insulation foam with factory applied durable foil for indoor and outdoor applications for mechanical and weather protection, mainly designed to control condensation and energy losses.

| Property   | Value/ Assessment   | Tested acc. to:   |
|--|---|-------------------|
| <b>Thermal conductivity (at 23 °C)</b>   | 0.036 W/m·K   | ASTM C518         |
| <b>Temperature range</b><br>Max. line temperature<br>Min. line temperature   | +105 °C (+80 °C with PSA*)<br>-80 °C (-30 °C with PSA*)   | ASTM C1427        |
| <b>Density of foam core</b>  | 25±3 kg/m <sup>3</sup>  |                   |
| <b>Water vapor diffusion resistance factor</b>   | μ > 85000   | BS EN 12086       |
| <b>Water vapor permeance</b>   | 5.1 x 10 <sup>-10</sup> g/Pa.m <sup>2</sup> .s  | BS EN 12086       |
| <b>Water absorption</b>  | 0.0023 g/cm <sup>2</sup>  | JIS K 6767        |
| <b>Reaction to fire</b>  | FSI <25, SDI <50  | ASTM E84          |
|  | Class 0   | BS 476 Part 6 & 7 |
|  | Ignitability index 0<br>Spread of flame index 0<br>Heat evolved index 0<br>Smoke developed index 1  | AS 1530.3         |
|  |   |                   |
| <b>UV ageing (UV resistance)</b>   | Excellent   | ISO 4892-3        |
| <b>Resistance to salt spray test</b>   | Excellent<br>No changes in thermal performance & appearance   |                   |
| <b>Tensile strength</b>  | >950 N MD<br>>820 N TD  | ASTM D751         |
| <b>Tear strength</b>   | >120 N MD<br>>90 N TD   | ASTM D751         |
| <b>Puncture resistance</b>   | >700 N  | ASTM D4833        |
| <b>Resistance to fungi</b>   | Zero growth   | ASTM G21          |
| <b>Ozone resistance</b>  | Excellent   | ASTM D1149        |
| <b>Environment friendly</b><br>Ozone Depletion Potential (ODP)<br>Global Warming Potential (GWP)<br>CFC& HCFC, dust, fibers & asbestos | 0<br><5<br>Free   |                   |
| <b>Storage life</b>  | <i>Can be stored for 24 months (12 months with PSA*) from manufacturing date in a dry, dust free room at normal humidity and ambient temperature.</i> |                   |

\*PSA - Pressure Sensitive Adhesive

**Disclaimer:** This information on Hira Manufacturing products is presented to the best of our knowledge. All product data is based on average values and is for guidance only. As these products are subject to constant research and development, we reserve the right to update the contents without notice.

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