

# AEROFOAM<sup>®</sup> -NBR CLAD



*Flexible Closed Cell  
Elastomeric Thermal Insulation Foam  
for Indoor & Outdoor Applications*

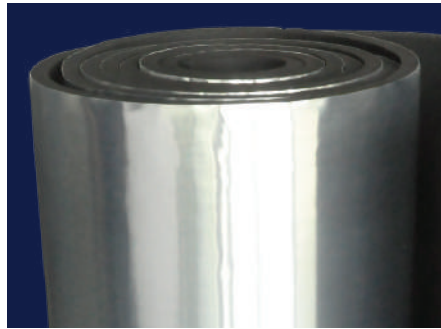
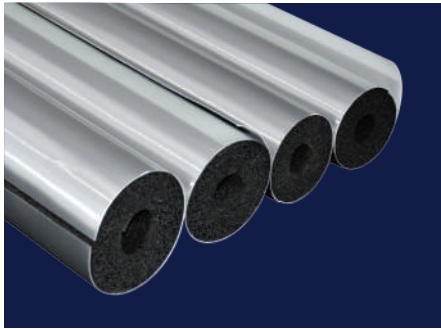
ASTM E84

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













# AEROFOAM® NBR CLAD TUBES & ROLLS

Aerofoam® NBR 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® NBR Clad is easy to install and offers time savings of more than 50% compared to non-factory applied jacketing systems.



## 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

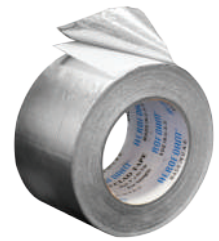


# AERO-FITTINGS

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



# AEROFOAM® TAPE



Aerofoam® Tape  
N Clad

# AEROFOAM® NBR 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® NBR CLAD TUBES - SIZE RANGE

Copper Pipes for AC & Refrigeration		Steel Pipe		Aerofoam® NBR Tubes		Aerofoam® NBR Tubes Size Range									
						9 mm (3/8")		13 mm (1/2")		19 mm (3/4")		25 mm (1")		32 mm (1-1/4")	
OD [inch]	OD [mm]	Nom size [inch]	OD [mm]	ID [inch]	ID [mm]	NBR Clad Code	Pcs /Box	NBR Clad Code	Pcs /Box	NBR Clad Code	Pcs /Box	NBR Clad Code	Pcs /Box	NBR Clad Code	Pcs /Box
1/4"	6.35			1/4"	6.00			NBRT136/CL	70	NBRT196/CL	40	NBRT256/CL	30	NBRT326/CL	15
3/8"	9.52			3/8"	9.00			NBRT139/CL	60	NBRT199/CL	35	NBRT259/CL	20	NBRT329/CL	15
1/2"	12.70			1/2"	13.00			NBRT1313/CL	50	NBRT1913/CL	35	NBRT2513/CL	20	NBRT3213/CL	15
5/8"	15.90	1/4"	13.50	5/8"	16.00			NBRT1316/CL	45	NBRT1916/CL	30	NBRT2516/CL	20	NBRT3216/CL	15
3/4"	19.10			3/4"	19.00			NBRT1319/CL	40	NBRT1919/CL	25	NBRT2519/CL	20	NBRT3219/CL	15
7/8"	22.20	1/2"	21.30	7/8"	22.00			NBRT1322/CL	35	NBRT1922/CL	25	NBRT2522/CL	20	NBRT3222/CL	10
1"	25.40			1"	25.00	NBRT925/CL	40	NBRT1325/CL	35	NBRT1925/CL	20	NBRT2525/CL	15	NBRT3225/CL	10
1-1/8"	28.60	3/4"	26.90	1-1/8"	28.00	NBRT928/CL	36	NBRT1328/CL	30	NBRT1928/CL	20	NBRT2528/CL	15	NBRT3228/CL	10
				1-1/4"	32.00	NBRT932/CL	30	NBRT1332/CL	25	NBRT1932/CL	20	NBRT2532/CL	15	NBRT3232/CL	10
1-3/8"	34.90	1"	33.70	1-3/8"	35.00	NBRT935/CL	30	NBRT1335/CL	25	NBRT1935/CL	20	NBRT2535/CL	15	NBRT3235/CL	10
				1-1/2"	38.00	NBRT938/CL	30	NBRT1338/CL	20	NBRT1938/CL	15	NBRT2538/CL	12	NBRT3238/CL	10
1-5/8"	41.30	1-1/4"	42.40	1-5/8"	42.00	NBRT942/CL	25	NBRT1342/CL	20	NBRT1942/CL	15	NBRT2542/CL	12	NBRT3242/CL	10
1-7/8"	48.00	1-1/2"	48.30	1-7/8"	48.00	NBRT948/CL	20	NBRT1348/CL	20	NBRT1948/CL	15	NBRT2548/CL	10	NBRT3248/CL	8
				2"	51.00	NBRT951/CL	20	NBRT1351/CL	15	NBRT1951/CL	15	NBRT2551/CL	9	NBRT3251/CL	8
2-1/8"	54.00			2-1/8"	54.00	NBRT954/CL	20	NBRT1354/CL	15	NBRT1954/CL	15	NBRT2554/CL	9	NBRT3254/CL	8
2-3/8"	60.30	2"	60.30	2-3/8"	60.00	NBRT960/CL	20	NBRT1360/CL	15	NBRT1960/CL	12	NBRT2560/CL	9	NBRT3260/CL	6
2-1/2"	63.00			2-1/2"	63.00	NBRT963/CL	20	NBRT1363/CL	15	NBRT1963/CL	12	NBRT2563/CL	9	NBRT3263/CL	6
2-5/8"	67.00			2-5/8"	67.00	NBRT967/CL	20	NBRT1367/CL	15	NBRT1967/CL	10	NBRT2567/CL	8	NBRT3267/CL	5
2-7/8"	73.00			2-7/8"	73.00	NBRT973/CL	18	NBRT1373/CL	12	NBRT1973/CL	10	NBRT2573/CL	6	NBRT3273/CL	4
3"	76.00	2-1/2"	76.10	3"	76.00	NBRT976/CL	15	NBRT1376/CL	12	NBRT1976/CL	10	NBRT2576/CL	6	NBRT3276/CL	4
3-1/8"	79.00			3 1/8"	79.00	NBRT979/CL	15	NBRT1379/CL	12	NBRT1979/CL	10	NBRT2579/CL	6	NBRT3279/CL	4
3-1/2"	89.00	3"	88.90	3-1/2"	89.00	NBRT989/CL	15	NBRT1389/CL	10	NBRT1989/CL	8	NBRT2589/CL	6	NBRT3289/CL	4
				3-5/8"	92.00			NBRT1392/CL	8	NBRT1992/CL	6	NBRT2592/CL	6	NBRT3292/CL	4
4"	102.00			4"	102.00			NBRT13102/CL	8	NBRT19102/CL	6	NBRT25102/CL	4	NBRT32102/CL	3
				4-1/8"	105.00			NBRT13105/CL	8	NBRT19105/CL	6	NBRT25105/CL	4	NBRT32105/CL	3
				4-3/8"	110.00			NBRT13110/CL	8	NBRT19110/CL	6	NBRT25110/CL	4	NBRT32110/CL	3
4-1/2"	114.00	4"	114.30	4-1/2"	114.00			NBRT13114/CL	6	NBRT19114/CL	6	NBRT25114/CL	3	NBRT32114/CL	3

Note: Available length of tubes 1 m. Aerofoam® NBR Clad tubes are packed in carton box.

## AEROFOAM® NBR CLAD ROLLS & SHEETS - SIZE RANGE

NBR Clad Rolls						NBR Clad Sheets				
THK. Inch	THK. Inch	W x L mtr	Without Self Adhesive	With Self Adhesive	Pcs /Box	W x L mtr	Without Self Adhesive	With Self Adhesive	Pcs /Box	
1/4"	6	1x30/ 1x20 (with SA)	NBRR6-1-30/CL	NBRR6-1-20/CL-SA	1	1x1	NBRS6-1000-1000/CL	NBRS6-1000-1000/CL-SA	30	
3/8"	9	1x20/ 1x15 (with SA)	NBRR9-1-20/CL	NBRR9-1-15/CL-SA	1	1x1	NBRS9-1000-1000/CL	NBRS9-1000-1000/CL-SA	20	
1/2"	13	1x14/ 1x10 (with SA)	NBRR13-1-14/CL	NBRR13-1-10/CL-SA	1	1x1	NBRS13-1000-1000/CL	NBRS13-1000-1000/CL-SA	15	
5/8"	16	1x12/ 1x10 (with SA)	NBRR16-1-12/CL	NBRR16-1-10/CL-SA	1	1x1	NBRS16-1000-1000/CL	NBRS16-1000-1000/CL-SA	12	
3/4"	19	1x10/ 1x7 (with SA)	NBRR19-1-10/CL	NBRR19-1-7/CL-SA	1	1x1	NBRS19-1000-1000/CL	NBRS19-1000-1000/CL-SA	10	
1"	25	1x8/ 1x5 (with SA)	NBRR25-1-8/CL	NBRR25-1-5/CL-SA	1	1x1	NBRS25-1000-1000/CL	NBRS25-1000-1000/CL-SA	8	
1-1/4"	32	1x4	NBRR32-1-4/CL	NBRR32-1-4/CL-SA	1	1x1	NBRS32-1000-1000/CL	NBRS32-1000-1000/CL-SA	6	
1-1/2"	40	1x2	NBRR40-1-2/CL	NBRR40-1-2/CL-SA	1	1x1	NBRS40-1000-1000/CL	NBRS40-1000-1000/CL-SA	4	
2"	50	1x2	NBRR50-1-2/CL	NBRR50-1-2/CL-SA	1	1x1	NBRS50-1000-1000/CL	NBRS50-1000-1000/CL-SA	4	

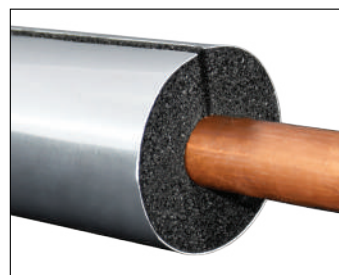
Note: Aerofoam® NBR Clad Rolls and Sheets are packed in carton box.

Tolerances - Tubes (foam core only)		
Internal Diameter (ID)	Target	Target Tolerance
	ID + 1 mm	-1 mm, +4 mm (for ID ≤100 mm) -1 mm, +6 mm (for ID >100 mm)
Thickness	≤6 -16 mm : ±1.5 mm	
	19-25 mm : ±2.5 mm	
	≥32 mm ±3 mm	
Length	±1.5%	

Tolerances Rolls and Sheets			
Thickness	Thickness Tolerance	Length Tolerance	Width Tolerance
6-25 mm	± 2 mm	±1.5%	-20 mm +40 mm
32-50 mm	± 3 mm		

Accessories
Aerofoam® N Clad Tape
Aerofoam® NBR Glue

Aerofoam® NBR Clad system is also available as pre-slit tubes and pre-slit with self adhesive Lap Seal. Installation is easy, fast and efficient.



Aerofoam® NBR Clad Pre-slit Tubes with Lap Seal

Aerofoam® NBR Clad Pre-slit Tubes

# TECHNICAL DATA

**Description:** Flexible elastomeric closed cell thermal insulation foam with factory applied durable jacketing 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>Aerofoam® NBR CLAD (foam core only)</b>		
<b>Thermal conductivity (at 23 °C)</b>	0.033 W/m·K	ASTM C518
<b>Temperature range</b>		
Max. line temperature	+110 °C (+80 °C with PSA*)	ASTM C411
Min. line temperature	-80 °C (-30 °C with PSA*)	ASTM C534
<b>Density of the foam core</b>	40-70 kg/m <sup>3</sup>	ASTM C302
<b>Water vapor permeance</b>	1.56E-09 g/m <sup>2</sup> .s.Pa	ASTM E96
<b>Water absorption</b>	0.06% by volume	ASTM C209
<b>Reaction to fire</b>	FSI<25, SDI<50	ASTM E84
	Class O	BS 476 part 6&7
<b>Smoke density &amp; toxicity</b>	Passed	IMO MSC 61(67)
<b>Chemical analysis</b>	<0.05% water soluble chloride ions	DIN 1988
	pH - 7.3	ASTM C871
<b>Compression set</b>	31.23% (for 25 mm)	ASTM D3574
<b>Resistance to fungi</b>	Zero Growth	ASTM G21
<b>Resistance to bacteria</b>	Zero Growth	ISO 22196
<b>Ozone resistance</b>	Passed	ASTM D1149
<b>TVOC (Emission rate - 24 hours)</b>	<0.5 mg/m <sup>2</sup> /hr	ASTM D5116
<b>RoHS</b>	Comply	RoHS 3 2015/863
<b>Ozone Depletion Potential (ODP)</b>	0	
<b>Global Warming Potential (GWP)</b>	<5	
<b>CFC &amp; HCFC</b>	Free	
<b>Aerofoam® NBR CLAD (with foil)</b>		
<b>Water vapor permeability</b>	<0.028 g/m <sup>2</sup> /d	ASTM F1249
<b>Water vapor diffusion resistance factor</b>	μ>45000	UNE EN 12086
<b>Reaction to fire</b>	FDI <25, SDI <50	ASTM E84
<b>Weather &amp; UV resistance (foil)</b>	Excellent	UNE EN ISO 4892-3 & ASTM G26A
<b>Tensile strength (foil)</b>	MD 200 N/15 mm	EN ISO 527-3
	CD 175 N/15 mm	
<b>Elongation (foil)</b>	MD 48%	EN ISO 527-3
	CD 51%	
<b>Tear strength (foil)</b>	MD 70 N	EN ISO 527-3
	CD 28 N	
<b>Storage life</b>	Can be stored for 24 months (12 months with PSA*) from manufacturing date in a dry, clean, dust free room at normal humidity and ambient temperature.	

\*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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