

# FLEXICELL<sup>®</sup> - NBR



## Flexible Closed Cell Elastomeric Thermal Insulation Foam



AS 1530.3 TESTED

ISO 5660 - GROUP 2

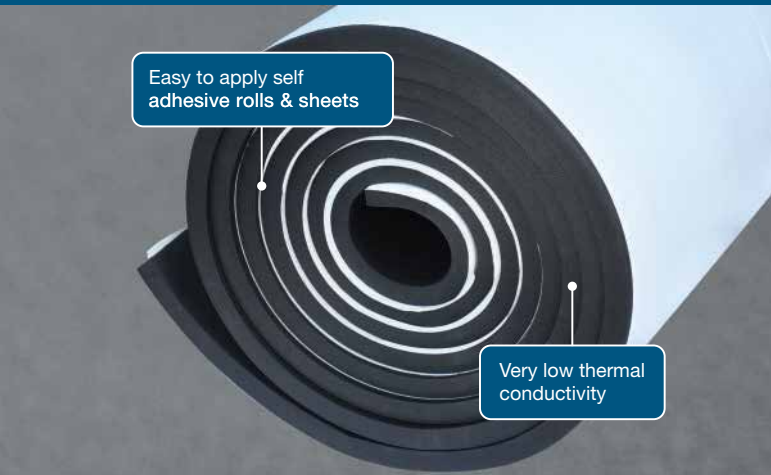
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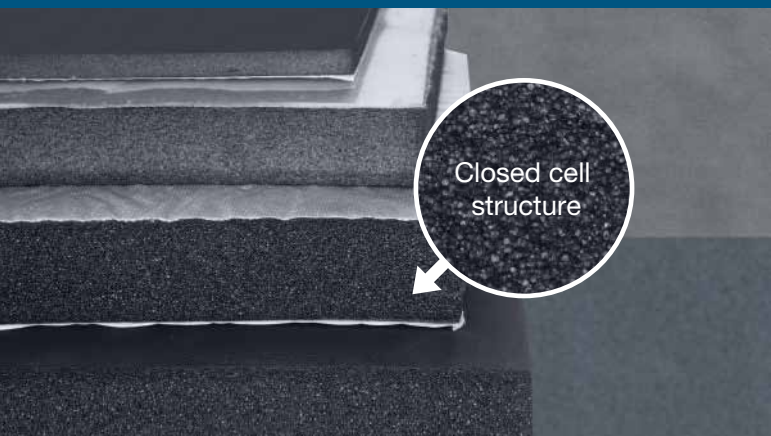
FlexiCell® NBR Tubes

**FlexiCell® NBR** is a flexible closed cell thermal insulation material for condensation control in air-conditioning, refrigeration and chilled water installations. It is also suitable for reducing thermal losses in heating and other plumbing systems.

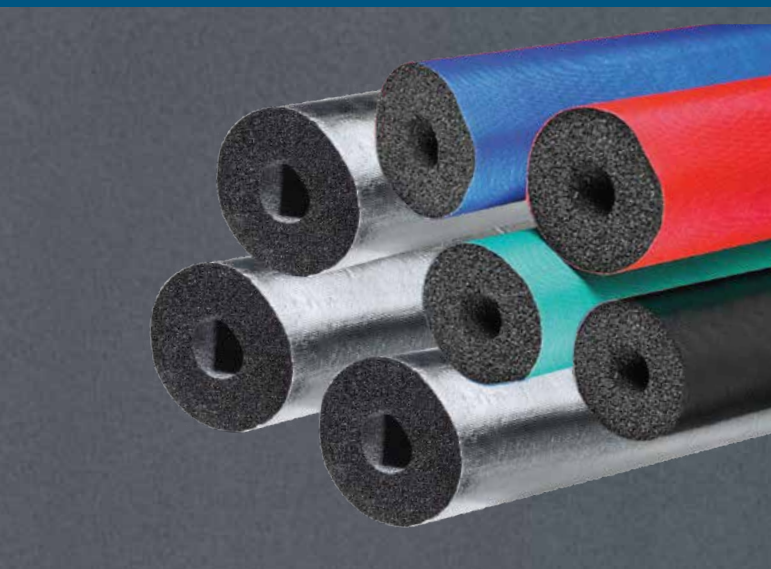
**FlexiCell® NBR** range covers majority of pipe sizes used in various types of installations.



FlexiCell® NBR Rolls



FlexiCell® NBR Sheets



FlexiCell® NBR with different facings

**FlexiCell® NBR with foil facing:** Factory applied aluminum foil facing is designed for indoor installations in order to increase the mechanical resistance of elastomeric foam. Available in the form of tubes and sheets.

**FlexiCell® NBR with Glass Cloth:** Glass cloth is a factory applied facing designed for indoor installations in order to increase the mechanical resistance and to improve the esthetic look of thermal insulation. It is available in the form of tubes, sheets and in different colors - black, blue, green and red.

## FIRE & SMOKE PERFORMANCE

FlexiCell® NBR meets AS1530.3 - early fire hazard properties of materials and is tested as per ISO 5660 - Group 2 Rated. Moreover, FlexiCell® NBR is FM approved as per FM 4924.



## EXCELLENT THERMAL EFFICIENCY

FlexiCell® NBR has a unique closed cell structure, which has a very low thermal conductivity. This ensures excellent thermal performance. FlexiCell® NBR is closed cell, it also provides excellent levels of condensation control.



## ENVIRONMENTALLY FRIENDLY

FlexiCell® NBR is CFC and HCFC free, fibre free dust free and resistant to mould and fungi growth. FlexiCell® has a very low ODP (Ozone Depletion Potential) and GWP (Global Warming Potential).



## ZERO WATER VAPOUR PERMEABILITY

FlexiCell® NBR is compounded to achieve high water vapour diffusion resistance through its closed cell structure and dense outer skin. This helps maintain a consistent thermal performance and a long service life.



FlexiCell® NBR's excellent protection against condensation ensures the long term thermal efficiency of the insulation.

## QUICK & EASY TO INSTALL

FlexiCell® NBR is quick and easy to install due to its high flexibility, dimensional stability and smooth surface skin. It can be applied on pipes and ducts.





# TECHNICAL DATA

**Description:** FlexiCell® NBR is a black flexible elastomeric thermal insulation product available in the form of tubes and sheets, unfaced with an aluminum foil facer or with a glass cloth facer.

Property	Value/ Assessment	Test Method
<b>Thermal conductivity</b> At 23 °C	6 mm - 32 mm - 0.032 W/m·K 40 mm - 50 mm - 0.033 W/m·K	ASTM C518
<b>Temperature range</b> Max. line temperature Min. line temperature <i>FlexiCell® Technical Support should be consulted for applications with temperatures below -40 °C.</i>	+110 °C (+80 °C with PSA*) -80 °C (-30 °C with PSA*)	ASTM C411 ASTM C534
<b>Density of the foam core</b>	40-70 kg/m <sup>3</sup>	ASTM C302
<b>Water vapor diffusion resistance factor</b>	μ>17,000	BS EN 12086
<b>Water vapor permeance</b>	1.56 E-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>	Ignitability Index: 0 Spread of Flame Index: 0 Heat Evolved Index: 0 Smoke Developed Index: 3	AS 1530.3
	Group 2	ISO 5660
<b>FM approval</b>	Approved	FM 4924
<b>Smoke and toxicity</b>	Passed	IMO MSC 61(67)
<b>Corrosion risk</b>	No corrosion risk for steel, stainless steel and copper pipes (Except austenitic stainless steel)	
<b>Chemical analysis</b>	Chloride content - 0.002 w/w%	DIN 1988
	pH - 7.3	ASTM C871
<b>Compression set</b>	31.23% (for 25 mm)	ASTM D3574
<b>Linear shrinkage</b>	0% at -80 °C, 4% at +104 °C	ASTM C534
<b>Resistance to fungi</b>	Zero growth	ASTM G21
<b>Resistance to bacteria</b>	Zero growth	ISO 22196
<b>Ozone resistance</b>	Excellent	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>Environment friendly</b> Ozone Depletion Potential Global Warming Potential CFC, HCFC, dust, fibers & asbestos	0 <5 Free	<b>Size Availability</b> Tubes ID 6 mm to 42 mm 48 mm to 60 mm 63 mm to 114 mm Thickness 6 mm to 32 mm 9 mm to 32 mm 13 mm to 32 mm Sheets & Rolls Thickness 6 mm to 50 mm Please contact Technical Support for detailed sizes with different foil facings.
<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

Note: All outdoor applications of FlexiCell® NBR need to be protected by FlexiCell® approved paint or weather resistant cladding.

**Disclaimer:** This information on Hira Industries 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.