



Technical Data Sheet for  
Flexible Closed Cell

## Elastomeric Thermal Insulation Foam



# 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 <i>As per BCA/NZBC. Values are results tested per AS/NZS 4859.1 2018</i>	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																
	Passed	EN 45545																
<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> <table border="0"> <tr> <td><b>Tubes thickness</b></td> <td><b>Tubes ID</b></td> </tr> <tr> <td>6 mm</td> <td>6-42 mm</td> </tr> <tr> <td>9 mm</td> <td>6-79 mm</td> </tr> <tr> <td>13, 19, 25, 32 mm</td> <td>6-114 mm</td> </tr> <tr> <td><b>Sheets thickness</b></td> <td><b>Sheets size</b></td> </tr> <tr> <td>6, 9, 13, 16, 19, 25, 32, 40, 50 mm</td> <td>1 m x 1 m</td> </tr> <tr> <td><b>Rolls thickness</b></td> <td><b>Rolls size</b></td> </tr> <tr> <td>6, 9, 13, 16, 19, 25, 32, 40, 50 mm</td> <td>1 m x 4-30 m (depending on thickness)</td> </tr> </table> Please contact Technical Support for detailed sizes with different foil facings.	<b>Tubes thickness</b>	<b>Tubes ID</b>	6 mm	6-42 mm	9 mm	6-79 mm	13, 19, 25, 32 mm	6-114 mm	<b>Sheets thickness</b>	<b>Sheets size</b>	6, 9, 13, 16, 19, 25, 32, 40, 50 mm	1 m x 1 m	<b>Rolls thickness</b>	<b>Rolls size</b>	6, 9, 13, 16, 19, 25, 32, 40, 50 mm	1 m x 4-30 m (depending on thickness)
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<b>Storage Life:</b> <i>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.</i>																		

**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.

\*PSA - Pressure Sensitive Adhesive

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

## MANUFACTURING LOCATIONS

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