Polyisocyanurate
Rigid Foam Data Sheet

GENERAL
RIGIFOAM offers Polyisocyanurate (PIR) foam with high performance in the following applications:

- Petro-chemical and process plant insulation
- Industrial insulation of pipe and vessels
- High fire risk application
- Shipping and off-shore installations
- Building panels
- Chilled water pipe lines for HVAC in multiple story buildings

CHARACTERISTICS
- RIGIFOAM PIR32HC has excellent thermal conductivity and high compressive strength
- Low flame spread and smoke emission, hence reducing fire risk, index greater >300
- Exhibits very good dimensional stability between 140°C and -100°C and can therefore be recommended with confidence in this temperature range
- Highly chemical resistant, particularly to hydrocarbons and solvents
- Eco-friendly, conforms to the Montreal and Kyoto Protocols, regarding OZONE depletion and global warming
- Thermosetting foam, does not soften, melt or drip
- Available in higher densities
SANS 10177 part 9 (1100 C flame) Result

**DESCRIPTION**
Can be supplied in sheet form and pipe sections. PIR foams are fine cellular rigid foams.

**COMpressive Strength**
With direction of rise - PIR32 220kPa
Variations of +10% may be found. SANS 53165

**THERMAL Conductivity**
At 10°C Mean Temperature : 0.023w/m.K

**FIRE Performance**
PIR32 has a high index of 300, hence is not reliant on fire retardants. Reduced smoke and toxic emissions is recommended for applications where good fire performance is required.

**Density**
32kg/m³ - minimum overall density
Core sample may exhibit variations of up to +10% SANS 53165

**Closed Cell Content**
Minimum value: 90%

**Dimensional Stability**
At - 15°C max 1.0% Dimension Change
At 100°C max 1.5% Dimension Change
At 70°C and 95% RH max 2.0% Dimension Change
All tests are over a 24 hour period. Test to ASTM D2126

<table>
<thead>
<tr>
<th>SANS 10177 part 9 (1100 C flame)</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Extinguishing</td>
<td>YES</td>
</tr>
<tr>
<td>Flame spread</td>
<td>140mm</td>
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<tr>
<td>Heat contribution</td>
<td>0°C/min</td>
</tr>
<tr>
<td>Max Chimney Temp (above Ambient)</td>
<td>0°C</td>
</tr>
<tr>
<td>NES 713</td>
<td>3.16</td>
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<tr>
<td>Toxicity index deemed safe to use in confined areas</td>
<td></td>
</tr>
</tbody>
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**Dimensional Tolerance**
Length and Width +/-2.0mm maximum
Thickness +/-1.0mm maximum

**The Disavowal**
The customer acknowledges and understands that after delivery, the goods shall have left the control of Rigifoam, and that he/she shall be responsible for the unpacking of and connection/installation of the goods. The customer acknowledges that it is his/her further responsibility to ensure that a fully qualified and competent person is used to install the goods to ensure their effective operation. Failure by the customer to ensure the installation of the goods according to the written instructions of manufacturer and/or supplier, by a fully qualified and competent person, may result in the failure of the goods, injury, loss or damages to the customer. Accordingly, and in this event, Rigifoam accepts no responsibility for any losses or damages that might arise by reason of death or personal injury to any person engaged in the installation or use of the goods thereafter subject to the provisions of the Consumer Protection Act 68 of 2008.