EXCERPTS FROM
CHIEF EPS FOAM BEAD RESIN
TESTING DOCUMENT NO. 3025950-1

RE. EPS FOAM VAPOUR PERMEANCE TESTING OF
NUDURA EPS FOAM TO ASTM E-96

AS A COMPONENT OF
NUDURA™ INTEGRATED BUILDING TECHNOLOGY
INSULATED CONCRETE FORMS

CONDUCTED AT PLASTIQUES CELLULAIRES POLYFORM
MANUFACTURING FACILITY

NOTE:

ON Nov 1st, 2002, THE COMPANY FORMERLY KNOWN AS “AIM BUILDING PRODUCTS INC.”
BECAME INCORPORATED UNDER THE COMPANY NAME OF “NUDURA CORPORATION”
Description

**Foam Description:** Nudura I.C.F. High Performance Wall System Insulating Concrete Forms manufactured at Plastiques Cellulaire Polyform Granby, Quebec

**Material:** Expanded polystyrene foam manufactured from one (1) bead type identified as Starex SF-301H Cheil Industries.

**Foam Panel Dimensions:** 18" high X 96" long X 2-5/8" thick each side

**Color:** Green

**Web Description:** Polypropylene reinforcing webs are cast into EPS foam to create a positive connection between interior and exterior EPS walls and to serve as an anchor point for surface finishing materials.

**Web Material:** Injection Molded Polypropylene manufactured by Polymax, Granby Quebec

**Web Spacing:** Every 8" (203 mm) horizontally

**Web Color:** Black

Summary of Test Results

**Starex SF-301H Cheil Industries**

<table>
<thead>
<tr>
<th>Property</th>
<th>CAN/ULC-S701-01 Requirement Number</th>
<th>Requirement</th>
<th>Result</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength</td>
<td>5.1.1 table 1</td>
<td>Min 240 kPa.</td>
<td>276 kPa (40.1 lb/in²)</td>
<td>Met requirement</td>
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<tr>
<td>Compressive Strength</td>
<td>5.1.1 table 1</td>
<td>Min. 110 kPa</td>
<td>128 kPa (18.6 lb/in²)</td>
<td>Met requirement</td>
</tr>
<tr>
<td>Water Vapour Permanence</td>
<td>5.1.1 table 1</td>
<td>&lt;300 ng/Pa.s.m² @ a thickness of 25 mm</td>
<td>96 ng/Pa.s.m² @ a thickness of 25 mm</td>
<td>Met requirement</td>
</tr>
<tr>
<td>Dimensional Stability</td>
<td>5.1.1 table 1</td>
<td>Max. 1.5%</td>
<td>-0.47% Max. change</td>
<td>Met requirement</td>
</tr>
</tbody>
</table>
Test Results

1. Water Vapour Permeance: ASTM E 96

Starex SF-301H Cheil Industries

<table>
<thead>
<tr>
<th></th>
<th>Sample #1</th>
<th>Sample #2</th>
<th>Sample #3</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness (mm)</td>
<td>25.0</td>
<td>25.5</td>
<td>25.0</td>
<td></td>
</tr>
<tr>
<td>Surface area (m²)</td>
<td>0.027</td>
<td>0.027</td>
<td>0.027</td>
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<tr>
<td>Duration (h)</td>
<td>312</td>
<td>312</td>
<td>312</td>
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<tr>
<td>Test Temperature (°C)</td>
<td>23</td>
<td>23</td>
<td>23</td>
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<tr>
<td>Relative Humidity (R1-R2)(%)</td>
<td>53</td>
<td>53</td>
<td>53</td>
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<tr>
<td>Saturation Pressure (Pa)</td>
<td>2810.4</td>
<td>2810.4</td>
<td>2810.4</td>
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<tr>
<td>Moisture Gain (g)</td>
<td>3.94</td>
<td>4.13</td>
<td>4.88</td>
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<tr>
<td>WVT (g/h.m²)</td>
<td>0.468</td>
<td>0.490</td>
<td>0.579</td>
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</tr>
<tr>
<td>Water vapour Permeance (ng/Pa.s.m²)</td>
<td>87</td>
<td>91</td>
<td>108</td>
<td>95</td>
</tr>
<tr>
<td>Permeability (ng/Pa.s.m)</td>
<td>2.18</td>
<td>2.32</td>
<td>2.70</td>
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</tr>
<tr>
<td>Estimated water Vapour Permeance (ng/Pa.s.m²) @ a thickness of 25 mm</td>
<td>87</td>
<td>93</td>
<td>108</td>
<td>96</td>
</tr>
<tr>
<td>Requirement</td>
<td></td>
<td></td>
<td></td>
<td>&lt;300ng/Pa.s.m² @ a thickness of 25 mm</td>
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