

## LEED

Leadership in Energy & Environmental Design

### POTENTIAL APPLICABLE CREDITS AND POINTS - EAST

Potential points using **POLARFOAM PF-7300-0 SOYA** Spray Polyurethane Foam.

Ref: LEED CANADA-NC, (V 1.0 Dec. 2004)

	<p><b><u>ENERGY &amp; ATMOSPHERE</u></b></p> <p><b><u>Optimize Energy Performance</u></b> (1-10 points)</p> <ul style="list-style-type: none"> <li>▪ It is easy to get a high efficiency envelope system with POLARFOAM SOYA. The R-value is higher than other insulation material (need less concrete at foundation wall) and the product has the highest performance for air barrier properties. In a single step with POLARFOAM SOYA you could design a high efficiency envelope system with minimum material acting as insulation, an air barrier and a vapour barrier. By using POLARFOAM SOYA it is possible to reduce the quantity and the size of the HVAC equipments</li> </ul> <p><b><u>MATERIALS &amp; RESOURCES</u></b></p> <p><b><u>Reuse Building</u></b> Note: <i>If a building already has Spray Foam Insulation, it is possible to keep it in place. SPF is 100% self-adhesive and stay in place for the life of the building. The foam maintains its air-barrier, vapour, and R-value properties. It is always possible to confirm properties values with laboratory testing. New SPF could be applied to product in place. With SPF in place the masonry veneer or siding will stay in good condition, no air exfiltration, and no water damage in the wall.</i></p> <p>MR-1.1</p> <ul style="list-style-type: none"> <li>▪ (1 point) Maintain 75% of existing walls, and roof</li> </ul> <p>MR-1.2</p> <ul style="list-style-type: none"> <li>▪ (1 in addition) Maintain 95% of existing walls, and roof</li> </ul>
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MR-2.1	<p><u>Construction Waste Management</u></p> <ul style="list-style-type: none"> <li>▪ (1 point) Divert 50% From Landfill.</li> </ul>
MR-2.2	<ul style="list-style-type: none"> <li>▪ (1 point in addition) Divert 75% From Landfill. POLARFOAM SOYA is deliver in 3 different size container: 250 Kg steel barrel, which is recyclable. Barrels will produce ~ 300 ft<sup>3</sup> of foam. Totes (1000 Kg plastic container)= (~1 200 ft<sup>3</sup> of foam) the totes are reusable. Bulk (40 000 Kg tanker truck): The liquid is transferred to bulk containers in truck = (~48 000 ft<sup>3</sup> of foam)</li> <li>▪ With Spray Polyurethane Foam there is no trimming or adjustment, no glue, no mechanical fastening, no tapes at joints. The spray foam follows any shape of the building and always gives the high performance result without any complex details. This result in minimum insulation waste.</li> <li>▪ The windows protection could be use by the spray foam contractor and the masonry contractor.</li> </ul>
MR-4.1	<p><u>Recycled Content: 7.5% (Post-Consumer + ½ Post Industrial)</u></p> <ul style="list-style-type: none"> <li>▪ (1 point)</li> </ul> <p>Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 7.5% of the total value of the materials in the project.</p>
MR-4.2	<p><u>Recycled Content: 15 % (Post-Consumer + ½ Post Industrial)</u> (1 Point in addition to MR 4.1)</p> <ul style="list-style-type: none"> <li>▪ Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 15% of the total value of the materials in the project.</li> </ul> <p>Base on the weight of the rigid foam spray in place POLARFOAM SOYA content 7.5 % post-consumer recycled product 10.5% post-industrial recycled product</p>

MR-5.1	<p><u>Regional Material</u> (1 point) 10% Extracted and Manufactured Regionally</p>
MR-5.2	<p>– (1 point in addition) 20% Extracted and Manufactured Regionally</p> <p>Use a minimum of 10% or 20% of building materials or products within 800 KM (500 miles) of the project site or 2400 Km (1 500 miles) when shipped by rail or water.</p> <p>POLARFOAM SOYA is mainly manufactured in: DEMILEC Canada, Boisbriand, Qc, and could also be manufactured at: DEMILEC USA, Dallas, Texas,</p>
MR-8	<p><u>Durable Building</u> ▪ (1 point)</p> <p>SPF was sprayed on apartment building in Toronto in 1969. The envelope is still in good condition and the spray foam is still delivers high performance and low utility bill.</p>
EQ-4.1	<p><b><u>INDOOR ENVIRONMENTAL QUALITY</u></b></p> <p><u>Low-Emitting Materials: Adhesives &amp; Sealants</u> (1 point)</p> <p>Reduce the quantity of indoor air contaminants that are odorous, potentially irritating and/or harmful to the comfort and well-being of installers and occupants</p> <p>POLARFOAM SOYA CONTENT: 0% FORMALDEHYDE, 0% CFC, 0% HCFC</p> <p>VOC: conform to:</p> <ul style="list-style-type: none"> <li>• CAN/ULC S705.1 Standard for Thermal Insulation Spray Applied Rigid Polyurethane Foam, Medium Density, Material Specification.</li> <li>• CAN/ULC S774: Standard Laboratory Guide for the Determination of Volatile Organic Compound Emissions from Polyurethane Foam</li> <li>• RESULT: Pass 24 HRS.</li> <li>• The total of all VOC components content in Polarfoam Soya are after: 12 hours = 0.0000115 grams/Litre 30 days = 0.00000194 grams/Litre</li> <li>• The LEED requirements for plastic Foam are 50 g/L</li> <li>• Product applied exclusively by Accredited third party contractors conform to:</li> <li>• CAN/ULC S 705.2 Standard for Thermal Insulation Spray Applied Rigid Polyurethane Foam, Medium Density, Installer’s Responsibilities-Specification.</li> </ul>

EQ-7	<p><u>Thermal Comfort</u></p> <ul style="list-style-type: none"> <li>▪ (1 point) Provide a thermally comfortable environment that supports the productivity and well being of building occupants.</li> </ul> <p>POLARFOAM SOYA acts efficiently in the building envelope assembly.</p>
ID-1	<p><b><u>INNOVATION &amp; DESIGN PROCESS</u></b></p> <p><u>Innovation in Design</u></p> <ul style="list-style-type: none"> <li>▪ (1 to 4 points) Design provides exceptional performance above the requirements set by LEED Green Building Rating System and/or Innovative performance.</li> <li>▪ HEATLOK SOYA could contribute to improving a high-energy performance. Better envelope system reducing HVAC capacity system, reducing energy consumption.</li> </ul> <p><b><u>PARTIAL LIST OF LEED PROJECTS COMPLETED WITH SOYA</u></b></p> <ul style="list-style-type: none"> <li>○ Mountain COOP, Montreal</li> <li>○ Cité des Arts du Cirque TOHU, Montreal</li> <li>○ Loft- bureau Technopole Angus</li> <li>○ Benny farm</li> </ul> <p>For additional information, please do not hesitate to contact the undersigned</p> <p>François Lalande arch. tech. Technical Support</p>

**REGIONAL MATERIAL**

Mr-5.1 (1 POINT)

Mr-5.2 (1 POINT IN ADDITION)

