

**TECHNICAL BULLETIN** **HALO® INTERRA® PROPERTIES CHART**  
**No.8 - 030517** **COMPARISON**  
**Rev2 100523** **CANADA**

Halo rigid insulation products are made from an advanced expanded polystyrene with infused graphite - graphite expanded polystyrene (GPS), which can offer up to 30% more insulation compared to conventional expanded polystyrene (EPS).

**PROPERTIES COMPARISON CHART - EPS vs GPS**

Physical properties per CAN/ULC S701	EPS	GPS <sup>1</sup>
<b>Classification Type</b> (based on CAN/ULC S701, unless noted otherwise)	1	1
<b>Thermal Resistance, RSI, at 24°C</b>	0.65	0.88 <sup>2</sup>
<b>Compressive Resistance, min, kPa</b>	70	70
<b>Water Absorption, max. % by volume</b>	6.0	1.1
<b>Flexural Strength, min, kPa</b>	170	170

1. Unless noted, otherwise, properties for Interra provided by 3rd party testing on 1" thick unfaced GPS. Interra is made with Type 1 GPS.
2. Based on nominal 1" thickness (actual thickness = 1.06")

In addition, GPS consists of properties comparable to Type 4 XPS insulation materials. The table below compares Halo Interra against a common insulation product manufactured by Dow Chemical.

**PROPERTIES COMPARISON CHART FOR INTERRA**

**Interior Basement Wall Applications** (physical properties per CAN/ULC S701)

	Styrofoam™ SM <sup>3</sup>	Interra <sup>4</sup>
<b>Classification Type</b> (based on CAN/ULC S701, unless noted otherwise)	4	1
<b>Thermal Resistance, RSI, at 24°C</b>	0.88	0.88 <sup>1</sup>
<b>Long-term Thermal Resistance, RSI, at 24°C</b>	0.79 <sup>2</sup>	0.88 <sup>1</sup>
<b>Compressive Resistance, min, kPa</b>	210	70
<sup>5</sup> <b>Water Absorption, max. % by volume</b>	0.7	1.1
<sup>6</sup> <b>Water Vapor Permeance, max, ng/Pa-s-m<sup>2</sup></b>	90	1.7 <sup>2</sup>
<b>Flexural Strength, min, kPa</b>	350	170
<b>Dimensional Stability, %</b>	1.5	2
<b>Oxygen Index, %</b>	24	24

1. Based on nominal 1" thickness (actual thickness = 1.06")
2. Based on independent testing. Properties tested with laminate and 1" thick GPS.
3. Properties provided by manufacturer's product data sheets based on 1" thickness.
4. Unless noted, otherwise, properties for Interra provided by 3rd party testing on 1" thick unfaced GPS.
5. Refer to Technical Bulletin 3 for further comparison between XPS and EPS regarding water absorption properties.
6. Refer to Technical Bulletin 2 for further comparison between XPS and EPS regarding permeance properties.
7. Based on manufacturer's limited warranty of 90% R-value retention.

TECHNICAL BULLETIN NO. 8 - MARCH 2017