

# BORAL<sup>®</sup> Composite

## STANDARD SPECIFICATIONS

Well suited to many neutron absorption applications, the BORAL<sup>®</sup> Composite is used for spent fuel storage pools, dry storage casks and fresh fuel transportation containers in the United States, Europe and Asia. Since the late 1950's, BORAL<sup>®</sup> has been used in research reactors, nuclear power plants and spent fuel storage systems worldwide. It has the longest continuous service history of any neutron absorbing material, performing its intended function for very long periods in high gamma and neutron radiation fields, never failing to meet its neutron absorption function,

BORAL<sup>®</sup> Composite is produced in our Ceradyne Canada ISO 9001:2008 certified and NQA-1 compliant facility in a wide range of surface dimensions, areal densities and thicknesses. It is manufactured in flat sheets that can be cut, punched and water jet to final dimensions.

### 1. BORAL<sup>®</sup> Dimensions of Sizes Available

Thickness (in)	Maximum Width		Maximum Length	
	(in)	(mm)	(in)	(mm)
0.075 – 0.250	36	914	192	4877
Over 0.250 <sup>(1)</sup>	Contact Ceradyne Canada			

(1) Thicker material can be produced but will need to be water jet cut to finished dimensions.

### 2. BORAL<sup>®</sup> Typical Dimension Tolerances

Thickness (in)	Thickness		Width		Length	
	(in)	(mm)	(in)	(mm)	(in)	(mm)
0.075 – 0.090	+/- 0.005	+/- 0.127	+/- 0.079	+/- 2	+/- 0.118	+/- 3
0.091 - 0.150	+/- 0.006	+/- 0.152	+/- 0.079	+/- 2	+/- 0.118	+/- 3
0.151 – 0.270	+/- 0.008	+/- 0.203	+/- 0.118	+/- 3	+/- 0.157	+/- 4
Over 0.270	+/- 0.008	+/- 0.203	+/- 0.118	+/- 3	+/- 0.157	+/- 4

### 3. BORAL<sup>®</sup> Areal density

<b><sup>10</sup>B maximum areal density (g/cm<sup>2</sup>)</b>
Corresponding to a maximum B <sub>4</sub> C loading in BORAL <sup>®</sup> core of 67%

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