



## TECHNICAL INFORMATION

Sheet Size:	4' x 8' (1220mm x 2440mm) or Custom Size					
Thickness:	1/4"	3/8"	1/2"	5/8"	3/4"	1"
	6 mm	9 mm	12 mm	16 mm	19 mm	25mm
Sheet Weight:	36lbs	50lbs	70lbs	88lbs	98lbs	138lbs
Sheet per pallet:	60	50	40	30	25	20
Shipping Weight/pallet:	2255 lbs	2595lbs	28950lbs	2735lbs	2545lbs	2760 lbs
Texture:	Smooth/Matt surface					
Color:	Beige or Red, Blue, Yellow, Grey, Pink, Green, Brown, Black, Cedar					
Milling:	Square edge					
Tolerance:	Length	96" ± 1/8" @70°F				
	Width	48" ± 1/16" @70°F				
	Squareness	± 3/16"				
	Thickness	± 0.5mm				

### POLYBOARD — Properties and Specifications

Testing Item	Testing Standard	Test Result	
		SI Units	Imperial Units
Density	ASTM D2395-83	853 kg/m <sup>3</sup>	53.3 lbs/ft <sup>3</sup>
Impact Strength	ASTM D3029-90	5.5 mm/kg	40.0 ft/lbs
Flexural Strength-Maximum Fibre Stress	ASTM D790-91	Long. 36.0 MPa Trav. 25.0 MPa	5 058.0 psi 3 512.5 psi
Flexural Modulus of Elasticity	ASTM D790-91	Long. 556.5 MPa Trav. 315.6 MPa	78 200 psi 44 342 psi
Tensile Strength	ASTM D638-91	Long. 9.0 MPa Trav. 7.0 MPa	1 264.5 psi 983.5 psi
Moisture Content	ASTM D4442-92	0.35%	0.35%
Water Absorption	ASTM D570-81	1.90%	1.90%
Compression Rating (Hardness)	ASTM D1037-91	30 711.9 kPa	4 451 psi
Thermal Resistance (R Value)	ASTM C518-84/E380-9a	0.244 (m <sup>2</sup> ·K/W)	1.386 (F·ft <sup>2</sup> ·h /Btu)
Sound Transmission Loss (80-6,300 Hz)	ASTM E90-90/E492-90	56.5 dB	56.5 dB
Dimensional Stability – Creep Modulus	ASTM D2990	3.8 MPa/cm	551 psi/in
Dimensional Stability – Load Modulus	ASTM D2990	1.42 · 10 <sup>-2</sup> of Span	1.42 · 10 <sup>-2</sup> of Span
Flamability	*FMVSS NO. 302	0.15 in/min	0.15in/mi

\* All ASTM tests are performed in compliance with the National Research Council Canada Guidelines with certificates.

New City Resources Inc. disclaims responsibility for results of use of this information which is furnished without charge, or anything mentioned herein. It is the user's responsibility.

## TECHNICAL INFORMATION

### COMPOSITION

Polyboard is a plastic composite board made from PE, paper and sawdust

### SOUNDPROOF TESTS (ASTM E 90/ASTM E 492)

Sound Transmission Class Test (ASTM E 90) 30dB – 84 dB (1/4" – 5/8")

Impact Insulation Class Test (ASTM E 492) 50 dB (1/2")

Polyboard's soundproof qualities are approximately twice that of OSB Board or plywood.

### FUNGAL RESISTANCE (U.S. Military Standard 810D method 508.3)

Polyboard showed no signs of visible fungal growth

### TERMITE-REPELLENT

Insects do not eat polyethylene which is the major ingredient of Polyboard.

### ULTRAVIOLET REQUIREMENTS

Coloured Polyboard can be specially made with UV stabilizers to keep the colour true for many years.

### CO-EFFICIENT LINEAR EXPANSION

Average unrestricted CLE = 56 cm/cm degrees Clesius x 10<sup>-6</sup>  
Or 100 in/in degree Fahrenheit x 10<sup>-6</sup>

### POLYBOARD IS BETTER THAN WOOD

1. Unaffected by rot, insects, fungus
2. Never cracks or splinters
3. Never absorbs water, swells or deforms
4. Has excellent nail-holding ability
5. Resists strong acids and bases

## MATERIAL SAFETY DATA SHEET

### PRODUCT & COMPANY IDENTIFICATION

Product Identifier: Polyboard  
General Use: Transportation, Farming, Playground, Flooring  
Product Description: Plastic Composite Board

### MANUFACTURER

250 Baseline Road East  
Bowmanville, Ontario  
Canada L1C 1A4

### EMERGENCY TELPHONE NUMBERS

Health/Transportation/Product Information  
(905) 697-3888 8 a.m. – 5 p.m. est.

### COMPOSITION/INFORMATION ON INGREDIENTS

Component A	approx. 60 – 80%	Polyethylene
Component B	approx 4 - 8 %	Polypropylene
Component C	approx. 0 – 10%	Wood Flour
Component D	approx. 10 - 30%	Cellulose
Component E	approx. 2%	Others (mainly colourant)

### HAZARDS IDENTIFICATION

Emergency Overview: Odourless, natural or coloured boards. Can burn in fire.

### POTENTIAL HEALTH EFFECTS

Inhalation: N/A  
Eye Contact: In dust form, may cause irritation or scratch the surface of the eye  
Skin Contact: Not irritating. Rubbing may cause irritation similar to sand or dust  
Skin Absorption: Unlikely to occur. Material is solid.  
Ingestion: Material is believed to cause very little hazard if swallowed.  
Chronic: This product has not been tested for toxicological effects.  
Carcinogenicity Data: This product's ingredients are not listed as carcinogens by NTP (National Toxicology Program) or regulated as carcinogens by the Occupational Safety and Health Administration.

**FIRST AID MEASURES** (Applicable to the product in form of small particles or dust)

- Inhalation:** No adverse effects anticipated by breathing small amounts during proper industrial handling.
- Eye Contact:** Flush eyes with water for a least five minutes or until irritation subsides. If irritation persists get medical attention.
- Skin Contact:** Flush with large amounts of water. Use soap if available. Remove Severely contaminated clothing (including shoes) and wash before Reuse. If irritation persists, seek medical attention.
- Ingestion:** No adverse effects anticipated by swallowing.

**FIRE FIGHTING MEASURES**

- Flash Point and method:** N/A
- Flammable Limits:** N/A
- Auto/Ignition Temperature:** 644-653 degrees Fahrenheit for Polyethylene fraction.
- Burn Rate:** .15 (in./min.) Test performed in accordance with FMVSS no.302.

**Fire Fighting Instructions:** Either allow fire to burn out under controlled conditions or extinguish with foam or dry chemical. Use water spray to cool fire exposed surface. Shut off fuel to fire if possible to do so without hazard.

**Extinguishing Media:** Water fog, foam, CO2 dry chemicals. Apply aqueous film forming (AFF) in the form of a fog for large fires. Use carbon dioxide or dry chemical media for small fires.

**Fire Fighting Equipment:** Respiratory and eye protection required for fire fighting personnel. Full protective equipment (Bunker Gear) and self contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of SCBA may not be required.

**HAZARDOUS COMBUSTION PRODUCTS**

Dense smoke emitted when burned without sufficient oxygen. Irritable gases will be released when product is exposed to temperatures over 572 degrees Fahrenheit/300 degrees Celsius.

**Accidental Release Measures:** (Applicable to the product in form of small particles or dust.) Vacuum and sweep material and place in a disposal container.

**Handling & Storage:**

Storage Temperature	Ambient
Storage Pressure	Atmospheric
General	Avoid breathing dust/contact with eyes. Minimize Dust accumulation. Store in a cool, well ventilated Place away from heat, sparks and flame.

#### EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Respiratory Protection:</u>	For most conditions, no respiratory protection should be needed. In a dusty atmosphere, use approved dust respirator.
<u>Skin Protection:</u>	No precautions other than clean body covering clothing should be needed.
<u>Eye Protection:</u>	If there is a potential for exposure to particles, which could cause mechanical injury to the eye, wear safety glasses.
<u>Exposure Guidelines:</u>	Not established.
<u>Engineering Controls:</u>	In confined spaces the use of local exhaust ventilation is recommended. Regular ventilation should be sufficient for most conditions.

#### PHYSICAL & CHEMICAL PROPERTIES

Appearance	Board
Odour	None
Specific Gravity	1.004 kg/m <sup>3</sup> at 25 degrees Celsius
Solubility in Water	Insoluble
Soluble Matter	up to .5%
Volatile Content	None
PH	Neutral
Boiling Point	N/A
Melting Point	Softens partially/polyethylene fraction melting at 250 degrees Fahrenheit.
Physical State	Solid

#### STABILITY & REACTIVITY

<b>General:</b>	This product is stable at ambient conditions.
<u>Incompatible Materials or Conditions to Avoid:</u>	Oxidizing materials
<u>Hazardous Decomposition:</u>	Starts to decompose above 280 degrees Celsius/536 Fahrenheit. Hazardous gases may evolve (Carbon monoxide)

**TOXICOLOGY INFORMATION**

From the analysis for metallic constituents and corrosive acid radicals, no significant concentrations of any leachable toxic substance were found.

**ECOLOGICAL INFORMATION**

In tests of *Polyboard* in distilled water, no significant concentration of any leachable toxic substances was found.

**DISPOSAL CONSIDERATIONS**

Consult an expert on the disposal for recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local regulations.

**TRANSPORT INFORMATION**

Not a hazardous material for DOT (Department of Transport) shipping.

**REGULATORY INFORMATION**

TSCA (Toxic Substance Control Act)

Components of this product are not listed in the TSCA inventory.

CRCLA (Comprehensive Response Compensation and Liability Act) NOT reportable.

We recommend you contact local authorities to determine if there may be other local reporting requirements.

SARA TITLE III (Superfund amendments and Reauthorization Act)

311/312 Hazard Categories – Immediate Health, Delayed Health, Fire

313 Reportable Ingredients - None

**OTHER INFORMATION – No Specific Notes**

The information relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. It is the user's responsibility to satisfy oneself as to the particular use. No warranty of any kind is given or implied and New City Resources Inc. will not be liable for any damages, losses, injuries or consequential damages, which may result from the use of or reliance on any information, contained herein.

---



BODYCOTE • 2395 SPEAKMAN DRIVE, MISSISSAUGA, ONTARIO, CANADA L5K 1B3 • TEL: (905) 822-4111 • FAX: (905) 823-1446

## UL 94HB Horizontal Burning Classification of "Polyboard" Material

A Report To: **New City Resources Inc.**  
250 Baseline Road East  
Bowmanville, Ontario  
L1C 1A4

Phone: (905) 697-3888  
Fax: (905) 697-0980

Attention: Allen Au

Submitted By: Fire, Flammability & Explosivity

Report No. 04-02-199(A)  
3 pages

Date: March 25, 2004





**Bodycote Materials Testing Canada Inc.***UL 94HB Horizontal Burning Classification of "Polyboard" Material**Page 2 of 3**For: New City Resources Inc.**Report No. 04-02-199(A)***ACCREDITATION** Standards Council of Canada, Registration #1.**REGISTRATION** ISO 9002-1994, registered by QMI, Registration #001109.**SPECIFICATIONS OF ORDER**

Perform testing in accordance with the Horizontal Burning Test of UL 94, "Test for Flammability of Plastic Materials for Parts in Devices and Appliances", as per our Quotation No. Q04-02-024 accepted March 3, 2004.

**IDENTIFICATION**

Plastic material, approximately 13 mm in thickness, identified as "Polyboard".

(BMTC sample identification number 04-02-S0199-2)

**SUMMARY OF TEST PROCEDURE**

At least three specimens, 125 x 13 mm, are each marked at 25 mm and 100 mm from one end. Each specimen is clamped horizontally at the end nearest the 100 mm mark, with its transverse axis inclined at 45° to the horizontal. A 20 mm high blue flame from a burner is applied to the end of the specimen for a period of 30 seconds, or whenever the flame front reaches the 25 mm mark, whichever comes first. The time for the flame front to travel between the 25 mm mark and the 100 mm mark, or when burning ceases are recorded, and the extent of burning measured.

The linear burning rate is calculated as follows:  $V = 60L/t$

Where:  $V$  = linear burning rate in mm/min  
 $L$  = damaged length in mm  
 $t$  = burning time in s

A material classified 94HB shall:

- A. Not have a burning rate exceeding 40 mm per minute over a 75 mm span for specimens having a thickness of 3.0 - 13 mm, or
- B. Not have a burning rate exceeding 75 mm per minute over a 75 mm span for specimens having a thickness less than of 3.0 mm, or
- C. Cease to burn before the 100 mm reference mark.



**Bodycote Materials Testing Canada Inc.**

*UL 94HB Horizontal Burning Classification of "Polyboard" Material*

*Page 3 of 3*

*For: New City Resources Inc.*

*Report No. 04-02-199(A)*

**TEST RESULTS**

**UL 94 - Test for Flammability of Plastic Materials for  
Parts in Devices and Appliances  
Horizontal Burning Test**

Specimen Conditioning: At least 48 hours at 23°C, 50% RH.

Tested Before Aging:

	Reach 25 mm Reference Mark?	Damaged Length (mm)	Reach 100 mm Reference Mark?	Burning Time (s)	Burning Rate (mm/min.)
1:	Yes	75	Yes	189.5	23.7
2:	Yes	75	Yes	195.7	23.0
3:	Yes	75	Yes	205.6	21.9

Specified Maximum: 40.0

Tested After Aging: (168 hours at 70°C)

	Reach 25 mm Reference Mark?	Damaged Length (mm)	Reach 100 mm Reference Mark?	Burning Time (s)	Burning Rate (mm/min.)
1:	Yes	75	Yes	185.6	24.2
2:	Yes	75	Yes	205.2	21.9
3:	Yes	75	Yes	202.1	22.3

Specified Maximum: 40.0

**CONCLUSIONS**

When tested according to the UL 94 Horizontal Burning Test procedure at an approximate thickness of 13 mm, the plastic material identified in this report qualifies for a 94HB classification.

*Note: This is an electronic copy of the report. Signatures are on file with the original report.*

Robert A. Carleton,  
Fire, Flammability & Explosivity

Richard J. Lederle,  
Fire, Flammability & Explosivity

*Note: This report consists of 3 pages, including the cover page, that comprise the report "body". It should be considered incomplete if all pages are not present.*