

# MATERIAL SAFETY DATA SHEET and TECHNICAL INFORMATION SHEET

**PRODUCT NAME:**

RPS MOULDINGS

**COMPANY NAME:**

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**CHARACTERISTICS:**

Density: 0.42 - 0.45 g/cm<sup>3</sup> (\*) (\*) this value is variable  
 Composition: Recycled Polymer Polystyrene: 100% (\*)  
 This product is free of CFC.  
 This product is free of asbestos.  
 This product is free of cyanides.  
 Hardness: Above 70 Shore D (\*)  
 Thickness: This is variable - 5mm to 27mm.  
 Surface: Mouldings have a film that accepts any high quality acrylic latex paint. No need to prime.  
 Ozone Depletion Factor: 0 (CFC free, water blown).  
 Melting Temperature: 170-190° C  
 Coefficient of Linear Thermal Expansion: 40-60. 10-6m/km.  
 Chemical Properties: Does not deteriorate and resistant to most common solvents and moisture.  
 Physical Properties: Shock and splitting resistant.  
 Influence of Time: Dimensionally stable: will not alter by time.  
 Influence by Humidity: Has no influence on the mechanical properties.  
 Influence of Sound: Polyurethane is acoustically neutral.  
 Influence of Light and Sun: RPS not UV-resistant for interior use only.

**TESTING and EVALUATION RESULTS:**

CLAUSE	REQUIREMENTS	RESULT - REMARK
Flexural Properties	<b>ASTM D6109-05, Method A</b>	The maximum load at rupture: 508N Flexural Strength (Modulus of Rupture): 9:10 MPa (Unexposed specimens, Initial Flexural Strength) Flexural Secant Modulus at 1% Strain: 692 MPa The Maximum Midspan Deflection: 12.94 mm
Freeze - Thaw Resistance	<b>ASTM D7032-08, Section 4.7</b> <b>ASTM D6109-05, Method A</b>	After 3 cycles Freeze - Thaw test. Flexural Strength (Modulus of Rupture): 8.79 MPa Decrease of Flexural Strength: 3.4%
Fastener Withdrawal	<b>ASTM D1761-06a</b>	Specimen of 18mm thickness, Maximum load: 118N Specimen of 30mm thickness. Maximum load: 203N
Tensile Properties	<b>ASTM D638-08</b>	Tensile Strength at Break: 3.43 MPa Percent Elongation after Break: 0.64% Modulus of Elasticity: 164 MPa
Coating Adhesion	<b>ASTM D3359-08, Method A</b>	Scale: 5A No peeling or removal

The above report testing complied with the applicable requirements of the following criteria: ASTM D7032-08, ASTM D1761-06, ASTM D6109-05, ASTM D638-08 and D3359-08.

## HAZARDS AWARENESS

**INHALATION:** Dust can cause irritation to upper respiratory tract also irritation to mucous membranes.

**INGESTION:** Not known - Not tested

**SKIN:** Dust may cause skin irritation

**EYE:** Dust may irritate the eyes. Always wear a mask and goggles when cutting material.

## RECOMMENDED FIRST AID MEASURES

**INHALATION:** Move patient to a fresh and well ventilated area. Consult a physician.

**INGESTION:** See a physician or any emergency center.

**SKIN:** First, wash skin with soap and water. If irritation persists consult a physician.

**EYE:** Flush eyes with plenty of clean water for at least 10 minutes.

**NOTE:** People with pre-existing respiratory tract conditions might have symptoms aggravated quicker than others. Dust might cause skin and gastrointestinal symptoms.

## FIRE FIGHTING MEASURES

Vapor mixes with carbon oxides

Flame Retardant: The standard material is not flame retardant

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, Carbon monoxide, styrene, benzene, aldehydes, and other hazardous gases, vapors and particles.

### FLAMMABLE PROPERTIES:

Flash Point: Not applicable

Combustible: Material burns on contact with ignition sources.

### FLAMMABLE LIMITS:

Lower Flammable Limit: Not applicable

Upper Flammable Limit: Not applicable

**AUTOIGNITION TEMPERATURE:** Around 800 degrees F.

**EXPLOSION HAZARD:** If combined with an ignition source. Dust concentration exceeds 30-60 g/m3.

**EXTINGUISHING MEDIA:** Dry chemical, carbon dioxide, water spray halon or foam.

**FIRE FIGHTING INSTRUCTIONS:** Evacuate and inform the fire department. If fire is small, use a fire extinguisher.

Exposure to temperatures greater than 800°F may cause a fire. Smoke may contain carbon monoxide, styrene, benzene, aldehydes, and other toxic materials.

## HANDLING and STORAGE

**Handling:** Use only an approved NIOSH/MSHA approved protective air-purifying respirator for dusts as well as goggles when cutting material to avoid dust inhalation.

**Storage:** Keep away from ignition sources. Store mouldings in closed cartons to avoid bending of material.

## PHYSICAL and CHEMICAL PROPERTIES

Solubility in Water	N/A	
Boiling Point	N/A	Density: 65 lb/ft3
Melting Point	N/A	Ph: NA
Vapor Density	N/A	Appearance: Similar to pre-finished wood mouldings.

## ECOLOGICAL and DISPOSAL INFORMATION

RPS mouldings achieve LEED certification. RPS mouldings do not pose an ecological hazard as a result of its intended use.

RPS mouldings can also be recycled. Dispose of waste according to your local, state/provincial, and federal requirements.

## ASTM STANDARD REFERENCE

RPS mouldings meet or exceed the following ASTM International Standards:

- **ASTM D6109-05:** Standard test methods for flexural properties of un-reinforced and reinforced plastic lumber and related products.
- **ASTM D7032-08:** Standard specification for establishing performance ratings for wood plastic composite.
- **ASTM D1761-06:** Standard test methods for mechanical fasteners in wood.
- **ASTM D638-08:** Standard test methods for tensile properties of plastics.
- **ASTM D3359-08:** Standard test methods for measuring adhesion by tape test.
- **ASTM G21-09:** Standard practice for determining resistance of synthetic polymeric materials to fungi.
- **ASTM D570-98:** (2010) e1 Standard test method for water absorption of plastics.
- **ASTM D6341-10:** Standard test methods for determination of the linear coefficient of thermal expansion of plastic lumber and plastic lumber shapes between 30 and 140°F (34.4 and 60°C)
- **ASTM D790-10:** Standard test methods for flexural properties of un-reinforced and reinforced plastics and electrical insulating materials.
- **ASTM D6117-10:** Standard test methods for mechanical fasteners in plastic lumber and shapes.
- **ASTM D1622-08:** Standard test method for apparent density of rigid cellular plastics.
- **ASTM D3345-08:** Standard test method for laboratory evaluation of wood and other cellulose materials for resistance to termites.

## RPS MOULDING PROFILES

RPS (Recycled Polystyrene) mouldings are available in the following profiles:

<ul style="list-style-type: none"><li>• Crown Moulding</li><li>• Baseboards</li><li>• Quarter Round</li><li>• Half Round</li><li>• Panel Moulding</li></ul>	<ul style="list-style-type: none"><li>• Friezes</li><li>• Chair Rail</li><li>• Angle Moulding</li><li>• Cap Moulding</li><li>• Astragals</li></ul>	<ul style="list-style-type: none"><li>• Covers</li><li>• Wainscoting Planks</li><li>• Shoe Moulding</li><li>• Door Stop</li><li>• Drip</li></ul>
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## ADHESIVES

RPS mouldings can be applied with any PL Premium Polyurethane Construction Adhesive. Liquid Nails POLY (IN-950), Liquid Nails Paneling Wood & Foam Moulding (LN-606).

## CUTTING

RPS mouldings can be cut just like wood. It is suggested to use a thin panel saw and cut with quick strokes. It is recommended to use a 10" blade, 200 teeth for a finer cut.

## NAILING

RPS mouldings can be nailed as well. Use a #3 or #4 bright finish nail. If using a nail gun set the machine between 70 and 90 PSI. Use 16 or 18 gauge finishing brads.

## PAINTING

RPS mouldings can be painted with any high quality acrylic latex paint. No need to prime.

## LIMITED WARRANTY

**RPS mouldings** are warranted to be free from defects in materials and workmanship. Any such defects must be reported to Outwater Industries, Inc. within ten (10) days of date of delivery. During this warranty period we will, at our option, replace free of charge, such merchandise as shall prove to be defective. THIS WARRANTY DOES NOT APPLY TO DAMAGE RESULTING FROM ACCIDENT, ALTERATION, MISUSE, TAMPERING, NEGLIGENCE, OR ABUSE. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE SPECIFICALLY DISCLAIMED.

## OTHER INFORMATION

This MSDS and Technical Information Sheet are provided solely for safety education. Outwater Industries, Inc. assumes no responsibility and disclaims liability for any loss, damage, or expense arising there from. The information provided was a collection of information provided to Outwater by reliable sources. Any test results mentioned here were provided by an independent laboratory company.



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