

GENERAL SPECIFICATION INFORMATION

SHEET ALUMINUM

1. SUPPLIER

Octopus Products Limited
23 Gurney Crescent
Toronto, ON
CANADA M6B 1S9
Phone: (416) 531-5051 or
Toll free: 1-877 OCTOLAM

2. PRODUCT DESCRIPTION

Uses: OCTOLUX aluminum sheets are supplied for both residential and commercial use. OCTOLUX aluminum sheeting is recommended for either vertical or low use horizontal surfaces. In uses such as counter or tabletops, the surface should be protected with either glass or a clear coat (Clear coat available from BASF. Call

1-877-OCTOLAM for details) OCTOLUX is the choice for innovative design work in applications such as:

Suspended ceilings Wall tiles
Wall panelling Partitions
Furniture & trim Sliding doors
Lighting Fixtures Balustrades
Desk accessories Planters
Industrial designs

Exhibits & Point of sale
Store fixtures & Displays
Decorative columns
Mirror frames & Inserts
Nameplates & Signs

Limitations: OCTOLUX aluminum laminates cannot be guaranteed for exterior use or direct application to plastered walls, gypsum wallboard or concrete walls.

OCTOLUX will contract and expand with significant temperature changes. During manufacturing, ensure that OCTOLUX sheets are conditioned to the environment in which the sheets will normally be exposed to.

Composition and Materials: OCTOLUX aluminum sheets made of an alloy consisting of a combination of aluminum, magnesium, zinc, manganese, chromium, nickel and lead.

3. INSTALLATION

OCTOLUX aluminum sheets should be bonded to a core material such as laminate grade plywood, particleboard, MDF, or metal using adhesives and techniques as recommended by reliable adhesive manufacturers.

Laminating: The following steps are recommended:

1. Clean the back of the sheet with a lacquer thinner or other similar solvent.
2. Use only a perfectly smooth substrate.
3. Apply two even coats of contact cement to both surfaces with a spray gun or roller.
4. To form a strong bond, press the laminate in a static press or pinch roller. Hand rollers are suitable for small surfaces.
5. Apply a backing sheet or seal the other side of the substrate to prevent moisture penetration.

CUTTING: A negative rake fine tooth metal or carbide saw blade is recommended. All tools should be sharp to avoid burning. The use of a mechanical shear is suggested for cutting narrow strips where a smooth edge is required. Narrow strips may buckle and be damaged if cut on a table saw.

ROUTING: Use a carbide tipped multi-fluted cutter. The overhang should not exceed 1/8". To finish edges, use a file or fine sandpaper.

BENDING: For high quality bends use a hand or mechanical brake. A slight colour variation may occur depending on the pressure applied and the sharpness of the bend. OCTOLUX can be formed into radiuses using a press brake or can be stamped with a punch press to create perforations.

V-GROOVING: To produce a sharp corner without using a brake, crease the back of the OCTOLUX sheet with a knife or scribe and then carefully bend the corner over a sharp edge of wood or metal, making sure to apply equal pressure along the entire length of the bend. Repeated bending may cause OCTOLUX to break.

FASTENING: OCTOLUX sections may be fastened with techniques identical to those used when working with sheet metal.

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4. MAINTENANCE

The anodized surface of OCTOLUX requires no polishing. To remove dust or stains, use a soft cloth with a non-abrasive glass cleaner.

5. LIMITATION OF WARRANTY AND LIABILITY

Limited Warranty: The Seller warrants the product sold hereunder shall conform in all material respects to the Seller's standard specifications shown on the Specification Sheets, which are available to the Buyer upon request. The Buyer assumes all risk as to the results of the use of the products purchased, whether used singly or in combination with other materials or in any process.

Limitation of Claims: At the Seller's option, replacement material without any additional cost to the Buyer, or purchase price refund will apply only in cases where manufacturer defect has been proven.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, BASED ON ANY COURSE OF DEALING OR USAGE OF TRADE OR OF FITNESS FOR PARTICULAR USE OR OTHERWISE, OTHER THAN STATED HEREIN OR REQUIRED BY APPLICABLE LAW, SELLER'S LIABILITY FOR ANY LOSS OR CLAIM WHATSOEVER, INCLUDING A CLAIM FOR BREACH OF THE WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED SOLELY AND EXCLUSIVELY TO REPLACEMENT OF DEFECTIVE OR NON-CONFORMING PRODUCTS AND REPAYMENT OF THE PURCHASE PRICE. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY OTHER ACTUAL DAMAGES OR ANY SPECIAL INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGE.

Any course of dealings between the parties to the contrary notwithstanding, the Buyer is responsible for inspection of the product upon receipt and prior to any cutting or fabrication. Any claim by the Buyer for breach of warranty shall be deemed waived to the extent it could have been determined by such inspection, unless presented in writing ten (10) days from the date of receipt of the products to which such claim relates. In all events, claims not made within two months after receipt are deemed waived.

The Seller shall have no liability for defects or other failures caused by failure to fabricate, install, use or maintain the products in accordance with Octopus' instructions.

The buyer assumes all risks and liability for loss, damage, or injury to person or property of the Buyer or others arising out of the use of possession of any products sold hereunder. Any question concerning this warranty should be mailed to:

Octopus Products Limited
Claims
23 Gurney Crescent, Toronto, ON
CANADA M6H 2B9

This warranty gives you specific legal rights. Consumers for personal or household use may also have other rights, which will vary from province to province, or in the USA, from state to state. Federal law does not permit the disclaimer or modification of implied warranties for consumers, but does permit the limitation of the duration of the implied warranties. Some provinces and states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

6. TECHNICAL SERVICES

Octopus Products Limited has trained sales representatives servicing all areas of Canada and the continental US. To speak to a representative in your area, call
Toll Free at 1-877-OCTOLAM.

TECHNICAL INFORMATION

SHEET ALUMINUM

Applicable Test Standards – American Society for Testing & Materials (ASTM)

TEST METHOD	DESCRIPTION
ASTM B117	Standard Method of Salt Spray (Fog) Testing.
ASTM B136	Standard Method for Measurement of Stain Resistance of Anodic Coating on Aluminum.
ASTM B137	Standard Method of Measurement of Weight of on Anodically Coated Aluminum
ASTM B244	Standard Method for Measurement of Thickness of Anodic Coatings on Aluminum and Other Non-Magnetic Metals with Eddy Current Instruments
ASTM B680	Standard Test Method for Seal Quality of Anodic Coatings on Aluminum by Acid Dissolution
ASTM D2247	Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
ASTM D4060	Standard Test Method for Abrasion Resistance for Organic Coatings with the Taber Abraser

CHARACTERISTICS	TEST METHOD	RESULTS
Corrosion Resistance	ASTM B117: 200 Hours Neutral Salt	No Corrosion
Stain Resistance	ASTM B136	No Stain
Coating Weight	ASTM B137: Coating Weight	3.8 – 9.5 mg/in ²
Coating Thickness	ASTM B244: Coating Thickness	0.1 – 0.25 mil 0.2
Seal Quality	ASTM B680: Acid Dissolution Weight Loss	1.3 mg/in ² max (20 mg/dm ²)
Humidity Resistance	ASTM D2247: 100% Relative Humidity, 43°C, 1000 Hours	Slight Bloom, No Corrosion
Abrasion Resistance	ASTM D4060: C510 Wheel, 1000 Grams Load, 100 Cycles	Less Than 1.5 mg per 100 cycles
Color Uniformity	HunterLab Tristimulus Colorimeter	Specification is color specific

OCTOLUX FLAMABILITY TESTS

ASTM e162-02: Standard test method for testing surface flammability of materials using a radiant heat energy source.

ASTM e662-01: Standard test method for specific optical density of smoke generated by solid materials.

OCTOPUS has not tested our products to the above specifications which are not applicable for rating materials for regulatory purposes, only for research and development. The above methods only apply to flammable materials. Aluminium and its alloys are not, under normal circumstances flammable. Aluminium alloys are melted under open flames in furnaces open to the atmosphere. While the surface of the liquid does oxidize, it does not burn. When exposed to a high temperature heat source, alloy 5005 begins to melt at about 650 degrees Celsius. During the phase change, no smoke, or any type of out gassing occurs. The anodic film on the surface does not melt until the temperature reaches approximately 2030 degrees Celsius, and being an oxide already, cannot burn.

This above information was provided to Octopus Products Limited on October 9, 2002 by our suppliers' Vice President of Product Development and the Chief Technical Officer.