



# Modular Barricades MATERIAL DATA SHEET



**Mall Wall** is the first choice in barricade systems throughout California. **Mall Wall** has provided temporary barricades in malls and other retail facilities since 1988.

Mall Wall barricades are factory constructed in modular form, transported to site and clean installed with minimum disruption to malls. They are removed after use and all materials are re-used or recycled.

Mall Wall barricades come in a variety of design options to customize the look and feel of the wall. Our temporary barricades can be created and installed within 48 hours and allow for a flawlessly smooth finish. While our plywood barricades offer high resistance to weather and are extremely durable.



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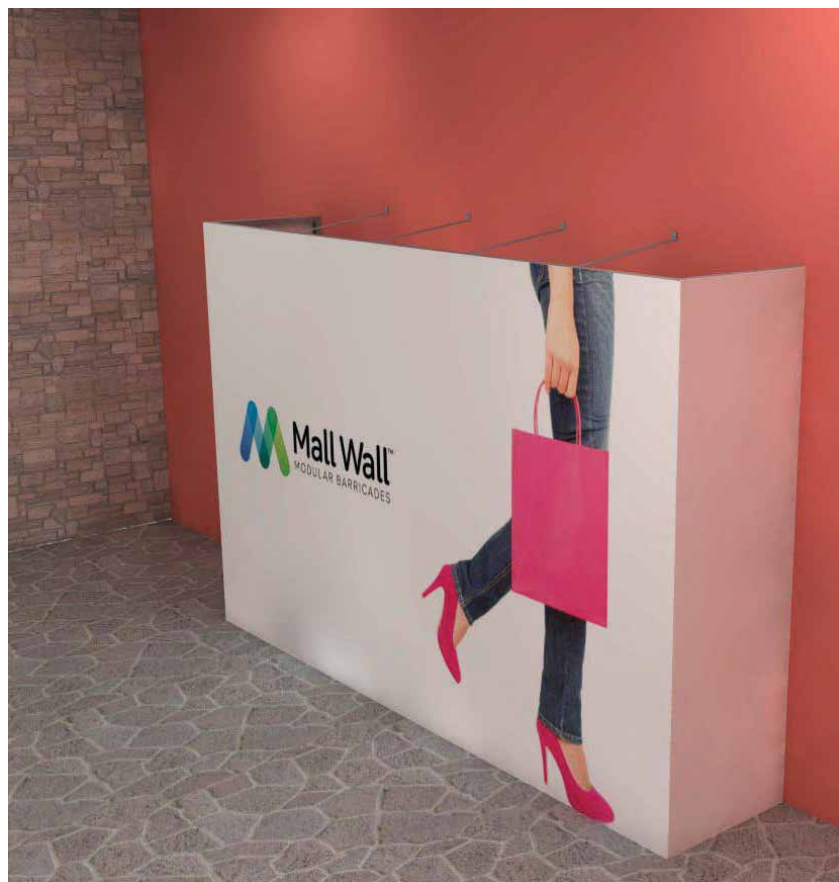
### Mall Wall Wood Stud Frame Barricade

<b>Panel Face</b>	3/8" MSDS smooth-faced plywood
<b>Panel Returns</b>	90° or curved returns
<b>Panel Widths</b>	4' standard (available in 6" width to a maximum of 4')
<b>Panel Heights</b>	8' standard (available in 12' height to any custom height)
<b>Barricade Frame</b>	2 5/8" x 3/4" timber vertical and horizontal support and CDX plywood timber outer frame
<b>Door Options</b>	Single or double doors
<b>Attachment Hardware</b>	18 ga. galvanized 2"x2" angle brace
<b>Panel Finishing</b>	Factory painted primer and two coats of semi-gloss applied to front face – providing excellent adhesion for vinyl graphics
<b>Dust Cover</b>	Dust covers are available in the following options: <ul style="list-style-type: none"> <li>• Black Visqueen</li> <li>• Clear Visqueen</li> <li>• Hard Lid</li> </ul>



### Mall Wall Metal Stud Frame Barricade

<b>Panel Face</b>	3/8" MSDS smooth-faced plywood
<b>Panel Returns</b>	90°
<b>Panel Widths</b>	4' standard (available in 6" width to a maximum of 4')
<b>Panel Heights</b>	8' standard (available in 12' height to any custom height)
<b>Barricade Frame</b>	2"x3" 18 ga frame - milled cold-rolled steel with zinc plating 2"x3" 18 ga. stud - milled cold-rolled steel with zinc plating
<b>Door Options</b>	Single or double doors
<b>Attachment Hardware</b>	18 ga. galvanized 2"x2" angle brace
<b>Panel Finishing</b>	Factory painted primer and two coats of semi-gloss applied to front face - providing excellent adhesion for vinyl graphics
<b>Dust Cover</b>	Dust covers are available in the following options: • Black Visqueen • Clear Visqueen • Hard Lid



**Product:** Plywood bonded with phenol-formaldehyde adhesive

Ingredient	CAS#	Percent	Agency	Exposure Limits	Comments
Wood	None	84-99	OSHA OSHA ACGIH ACGIH ACGIH <sup>2</sup> OSHA <sup>2</sup> OSHA <sup>2</sup> OSHA	PEL-TWA 15mg/m3 PEL-TWA 5mg/m3 TLV-TWA 5mg/m3 TLV-STEL 10mg/m3 TLV-TWA 1mg/m3 PEL-TWA 5mg/m3 PEL-STEL 10mg/m3 PEL-TWA 2.5mg/m3	Total dust Respirable dust fraction Softwood total dust Softwood total dust Selected hardwood total dust Softwood or hardwood total dust Softwood or hardwood total dust Western red cedar total dust
<sup>3</sup> Phenol formaldehyde resin solids	None	1-15	OSHA OSHA ACGIH	PEL-TWA 0.75 ppm PEL-STEL 2 ppm TLV-Ceiling 0.3 ppm	Free gaseous formaldehyde Free gaseous formaldehyde Free gaseous formaldehyde

## Hazard Identification

**Appearance and Odor:** Plywood is a 3-9 ply-veneer product with a slightly aromatic resinous odor and natural wood color. The wood component of these products may consist of alder, amescla, aspen, beech, birch, cottonwood, fir, gum, hemlock, hickory, maple, oak, pecan, pine, poplar, spruce, walnut and/or Western red cedar.

**Primary Health Hazards:** The primary health hazard posed by this product is thought to be due to exposure to wood dust.

**Primary Route(s) of Exposure:**

( ) Ingestion: N/A  
 (X) Skin: Dust  
 (X) Inhalation: Dust

**Medical Conditions Generally Aggravated by Exposure:**

Wood dust may irritate eyes and aggravate preexisting respiratory conditions or allergies.

**Chronic Health Hazards:** Dust of some species may cause allergic contact dermatitis and respiratory sensitization with

prolonged, repetitive contact or exposure to elevated dust levels. Prolonged exposure to wood dust has been reported by some to be associated with nasal cancer.

**Carcinogenicity Listing:**

( ) NTP: Not listed  
 (X) IARC Monographs: Wood dust, Group 1  
 (X) OSHA Regulated: Formaldehyde Gas

**IARC – Group 1:** Carcinogenic to humans; sufficient evidence of carcinogenicity. Classification is based on studies showing an association between occupational exposure to wood dust and adenocarcinoma of the nasal cavities and paranasal sinuses. There is insufficient evidence of an association between occupational exposure to wood dust and cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon or rectum.

<sup>1</sup> This MSDS is intended to be used solely for safety education and not for use as specification or warranties. The information in this MSDS comes from sources<sup>1</sup> believed to be accurate or otherwise technically correct but is provided without any representations or warranties regarding the accuracy or correctness. It is the user's responsibility to determine if this information is suitable for their applications and to follow safety precautions as deemed necessary.

<sup>2</sup> Exposure Limits based on 1989 OSHA PELs. A number of states have incorporated the OSHA PELs from the 1989 standard. Accordingly, OSHA has announced that it may cite companies under the OSH Act general duty clause under appropriate circumstances for non-compliance with the 1989 PELs.

<sup>3</sup> These products contain less than 0.05 ppm free formaldehyde.

<sup>4</sup> Weyerhaeuser MSDS WC 301-06 and Arauco MSDS



## Emergency and First-Aid Procedures

**Ingestion:** N/A under normal use.

**Eye Contact:** Wood dust may cause mechanical irritation. Flush with water to remove dust particles. Seek medical help if irritation persists.

**Skin Contact:** Dust of certain species can elicit allergic contact dermatitis in sensitized individuals, as well as mechanical irritation resulting in erythema and hives. Seek medical help if rash, irritation or dermatitis persists.

**Skin Absorption:** Not known to occur under normal use.

**Inhalation:** Dust may cause obstruction in the nasal passages, resulting in dryness of nose, dry cough, sneezing and headaches. Clear passages and remove to fresh air. Seek medical help if persistent irritation, severe coughing or breathing difficulty occurs.

## Fire and Explosion Data

**Flash Point:** N/A

**Flammable Limits:**

LEL: See (I) below

UEL: N/A

**Extinguishing Media:** Water, carbon dioxide, sand.

**Autoignition Temperature:** Variable [typically 400-500°F (204-260°C)]

**Special Firefighting Procedures:** None

**(I) Unusual Fire and Explosion Hazards:** Depending on moisture content and particle diameter, wood dust may explode in the presence of an ignition source. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts.

## Accidental Release Measures

**Steps to be Taken in Case of Release or Spills:** N/A for product in purchased form. Wood dust generated from machining of this product may be vacuumed or shoveled for recovery or disposal. Avoid dusty conditions and provide good ventilation. Use NIOSH/MSHA-approved dust respirator and goggles where ventilation is not possible and the allowable exposure limits may be exceeded.

## Handling and Storage

**Precautions:** No special handling precautions required for product in purchase form. Avoid repeated or prolonged breathing of wood dust. These products may release very small quantities of formaldehyde in gaseous form. Under foreseeable conditions of use, these products release less than 0.050 ppm in standard large chamber test conditions. Store in a well-ventilated, cool, dry place away from open flame.

## Exposure Control Measures

**Personal Protective Equipment:**

**RESPIRATORY PROTECTION** – N/A for product in purchase form. A NIOSH/MSHA-approved dust respirator is recommended when allowable exposure limits may be exceeded.

**PROTECTIVE GLOVES** – Not required. Cloth, canvas, or leather gloves are recommended to minimize potential mechanical irritation from handling product.

**EYE PROTECTION** – N/A for product in purchased form. Goggles or safety glasses are recommended when machining this product.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT** – N/A for product in purchased form.

**WORK/HYGIENE PRACTICES** – Clean up areas where wood dust settles to avoid excessive accumulation. Minimize practices that generate high airborne-dust concentrations.

**Ventilation:**

**LOCAL EXHAUST** – Provide local exhaust as needed so that exposure limits are met.

**MECHANICAL (GENERAL)** – Provide general ventilation in processing and storage areas so that exposure limits are met.

**SPECIAL** – N/A

**OTHER** – N/A

## Physical/Chemical Properties

Boiling Point (@ 760 mm Hg):	N/A
Vapor Pressure (mm Hg):	N/A
Vapor Density (air = 1; 1 atm):	N/A
Specific Gravity (H <sub>2</sub> O) = 1):	Variable, depends on wood species and moisture
Melting Point:	N/A
Evaporation Rate (Butyl acetate = 1):	N/A
Solubility in Water (% by weight):	<0.1% %
Volatile by Volume [@ 70°F (21°C):	0
pH:	N/A
Oil-water distribution coefficient:	N/A
Odor threshold:	Not Determined

## Stability and Reactivity

**Stability:** ( ) Unstable (X) Stable

**Conditions to Avoid:** Avoid open flame. Product may ignite at temperatures in excess of 400°F (204°C).

**Incompatibility (Materials to Avoid):** Avoid contact with oxidizing agents.

**Hazardous Decomposition or By-Products:** By-products of thermal decomposition include carbon monoxide, carbon dioxide, aliphatic aldehydes, rosin acids, terpenes and polycyclic aromatic hydrocarbons.

**Hazardous Polymerization:** ( ) May occur (X) Will not occur

## Toxicological Information

None available for product in purchased form.

Wood dust (softwood or hardwood) OSHA Hazard Rating = 3.3; moderately toxic with probable oral lethal dose to humans being 0.5-5 g/kg (about 1 pound for a 70 kg or 150 pound person).

## Recycling

**Recycling:** Mall Wall will remove the plywood from site once barricade is removed, the plywood material will be re-used or recycled.

## Transport Information

Not regulated as a hazardous material by the U.S. Department of Transportation. Not listed as a hazardous material in Canadian Transportation of Dangerous Goods (TDG) regulation.

## Additional Information

### Definition of Terms:

ACGIH =	American Conference of Governmental Industrial Hygienists
CAS# =	Chemical Abstracts System Number
IARC =	International Agency for Research on Cancer
MSHA =	Mining Safety and Health Administration
N/A =	Not Applicable
NIOSH =	National Institute for Occupational Safety and Health
OSHA =	Occupational Safety and Health Administration
PEL =	Permissible Exposure Limit
STEL =	Short-Term Exposure Limit (15 minutes)
TLV =	Threshold Limit Value
TWA =	Time-Weighted Average (8 hours)

### Product: Sheet metal flashing and trim

#### Performance Requirements

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. FM Approvals Listing: Manufacture and install copings and roof edge flashings that are listed in FM Approvals' "RoofNav" and approved for windstorm classification. Identify materials with name of fabricator and design approved by FM Approvals.
- D. SPRI Wind Design Standard: Manufacture and install copings, roof edge flashings tested according to SPRI ES-1 and capable of resisting the applicable design pressure as dictated by code.
- E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
- 1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

#### Sheet Metals

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Aluminum Sheet: ASTM B 209 (ASTM B 209M), alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required and with smooth, flat embossed surface.
  - 1. As-Milled Finish: Mill.
  - 2. Color Anodic Finish, Coil Coated: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
    - a. Color: As selected by Architect from full range of industry colors and color densities.
    - b. Color Range: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
  - 3. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil (0.013 mm).

### Product: ARISTOGLO® Fire Retardant Alkyd Semi-Gloss Enamel

#### Description

ARISTOGLO® is a premium fire retardant alkyd semi-gloss enamel designed for use on properly prepared and primed surfaces in interior areas where fire safety is a concern. ARISTOGLO displays less yellowing and lower odor than most alkyd enamels. ARISTOGLO also provides superior brushing characteristics, excellent flow and leveling, outstanding hide and abrasion resistance. Within California, available only in quarts. **RECOMMENDED FOR PROFESSIONAL USE.**

#### Product Information

**SOLVENT TYPE:** Paint thinner

**RESIN TYPE:** Alkyd

**FINISH (ASTM D 523):** Semi-Gloss: 45–55% on a 60o meter after 14 days.

**COLORS:** Stock colors: Swiss Coffee. Other colors can be special ordered or store mixed.

**TINT BASES:** L Tintable White, M Medium, U Ultra Deep

**VISCOSITY@77oF/25oC:** (ASTM D 562): 85–90 KU

**MAXIMUM VOC CONTENT:** 350 g/L (as supplied)

**MAXIMUM RAVOC:** (Reactivity-Adjusted VOC) 125 g/L

**SOLIDS BY VOLUME:** (ASTM D 2697) 56.3% +- 2%

**SOLIDS BY WEIGHT:** 74.8% +- 2%

**WEIGHT PER GALLON:** (ASTM D 1475): 11.25 lbs.

#### COMPOSITION BY WEIGHT

##### Pigment–46.7%

*Prime pigments	22.1
Fire Retardant pigment	17.5
Reinforcing pigments	7.1

##### Vehicle–53.3%

Alkyd resins	26.4
Thinner & additives	26.9

\*Prime pigments include titanium dioxide (TiO<sub>2</sub>), plus all other pigments directly adding to the hiding power of this paint.

#### RECOMMENDED FILM THICKNESS PER COAT

Wet: 3.6 mils      Dry: 2.0 mils

#### PRACTICAL COVERAGE PER COAT AT RECOMMENDED

**DRY FILM THICKNESS:** Approximately 400–450 sq. ft. per gallon, depending on surface conditions and application techniques.

**THINNING RECOMMENDATION:** This coating is intended to be applied without thinning or diluting under normal environmental and application conditions.

#### AVERAGE DRY TIME@77oF/25oC (ASTM D 1640)

To touch: 2–3 hours Recoat: 7–9 hours

Dry times and recoat times are temperature, humidity and film thickness dependent

#### APPLICATION EQUIPMENT:

Brush, roller, airless spray, HVLP spray

**PACKAGING:** Quart, one-gallon containers

**CLEANUP:** Paint thinner where allowed. Otherwise, use acetone.

**CONFORMS TO:** FDA Guidelines for Resinous & Polymeric Coatings

**SAFETY DATA SHEET:** Available at [www.dunneledwards.com](http://www.dunneledwards.com)

This Fire Retardant Coating has been fire-tested in accordance with ASTM Designation E 84-04 and rated as NFPA Class A, UBC Class I, with a flame spread index of 15 and smoke developed value of 10. Test report available upon request. **IMPORTANT:** Fire Retardant Coatings do not make combustible materials fireproof. The purpose of a Fire Retardant is to delay ignition and flame spread, providing valuable time for fire response or escape.