

Chalk Board

Technical Bulletin



Product Description

Composition

The Chalk Board Lam is manufactured with special decorative papers saturated with melamine resin, pressed with special texturized finishes which determines the special surface needed to be used with chalk. Kraft papers impregnated with phenolic resin constitutes the core of the laminate. All these materials are subjected to a high specific pressure 90kg/cm² and 135°C (275°F). Once the press cycle is over, the laminate is trimmed following the established nominal dimensions and sanded to provide a bigger adherence when the adhesive is applied over the wooden surface.

Recommended Uses

The Chalk Board Lam of Lamitech, offers a high performance when compared with conventional laminates for this kind of applications. The Chalk Board Lam has a good wear resistance and needs an easy cleaning and maintenance. It is most commonly used for institutional furniture at training academies, schools and universities.

| Product Identification | | | | | | | |
|-------------------------------------|----------------|-------------------|----------------------------|-----------------------------|-----------------------------|----------|-------|
| LAMINATE TYPE | LAMITECH GRADE | NOMINAL THICKNESS | SIZES | | | FINISHES | |
| | | mm. (inch) | 4 x 8 ft (1.22 x 2.44m) | 4 x 10 ft (1.22 x 3.06m) | 5 x 12 ft (1.53 x 3.66m) | Gloss | Matte |
| Horizontal Standard Chalk Board Lam | 70 | 1.20 (0.048) | x | x | - | - | x |
| Horizontal Standard Chalk Board Lam | 50 | 1.00 (0.039) | x | x | - | - | x |
| Horizontal Standard Chalk Board Lam | 30 | 0.70 (0.028) | x | x | - | - | x |

Basic Limitations

The Chalk Board Lam is designed for interior uses only, it is not meant to be structural material, it does not admit high humidity or high temperature, exceeding 135°C (275°F). The Chalk Board Lam should not be exposed to intense and continue sunlight. The Chalk Board Lam must be subjected to a monthly maintenance. It must be cleaned with a water moisten cloth to remove any chalk residual material that can derive in permanent stain. The reference approved by Chalk Board Lam is: Cinder Black Board 2207, only for standard vertical applications (not post-formable). Contact our sales representatives for more information.

Useful Information

1. The Chalk Board Lam must be conditioned and stored in a dry and ventilated place, never outdoors, It must be stowed horizontally and stored as far as possible at room temperature below 30°C and relative humidity less than 60%.

Chalk Board

Technical Bulletin



2. In the selection of the adhesive to be used there are several alternatives, the most common is solvent- neoprene based contact cement, which is recommended for manual applications where the pressure exerted is low. When it comes to industrial applications, we recommend PVA (polyvinyl acetate) adhesives, which are not reactivable with heat and have high resistance to moisture. For a good adhesion of the Chalk Board Lam, we recommend using between 80 and 140gr/m² of PVA adhesive and exerting a pressure of 2 to 3kg/cm². At the end of the application, if adhesive residue remains on the laminate, clean the surface with a soft cloth dampened with organic solvent varsol or with a 50:50 mixture of alcohol-organic solvent. It should be rinsed with warm water by completely removing the solvent.
3. To prevent the plating surface with Chalk Board Lam from buckling or deforming, we suggest applying the backer or balance laminate on the back side of the veneer, in order to obtain the optimum balance in the moisture absorbed by the wood layer. It is recommended that the Chalk Board Lam and its backer be the same thickness.
4. The cutting of the Chalk Board Lam should be done with disc saws with speeds between 8-12m / min. and 3000 to 5500r.p.m., with flat trapezoidal alternating geometry. For routing work you must use cylindrical drills of 12000r.p.m., Minimum.
5. To drill the Chalk Board Lam, use 10000r.p.m drills. With tungsten-carbide bits with a biangular tip, the selected bit should be 0.002 inches (0.05mm.) larger than the diameter of the hole to be made.

Maintaining & Cleaning

Instructions Daily Maintaining

As many other interiors design materials, the Chalk Board Lam should be cleaned regularly.

Clean out only by using a wet soft cloth, with mild temperature water and, if necessary, use soft detergent. Almost all common non-abrasive household cleaning and disinfection products can be used. For common blemishes, simply clean the surface with mild temperature water by using a non-abrasive cloth, harder stains can be eliminated aided with non-abrasives domestic solvents and cleaners. When old stains, dry and accumulate, use a magic sponge or soft cloth to take them out. After using any solvent, it is mandatory to rinse the surface with warm water and a mild detergent and repeat the rinse with water.

Cleaning And Disinfection Instructions

For routine cleaning of Chalk Board Lam, it is recommended to use water, mild non-abrasive soaps and a soft cloth such as microfiber. Do not use the abrasive side of the sponge, it is normally green.

Chalk Board

Technical Bulletin



For cleaning difficult stains such as: Tea, coffee, pencil, chalk, grease stains, dust or soap residue, use household cleaning agents such as grease remover soaps, Banner cleaner for dust and shine, odorless varnish, window cleaner, liquid soaps, or 0.1% strength sodium hypochlorite solution. It is important that the cleaning is done for a maximum of 5 minutes and then thoroughly clean the surface with water and a clean cloth.

All of our Chalk Board Lam is antibacterial and resistant to highly effective common disinfectants for the removal of SARS-CoV-2, the cause of Human Coronavirus disease, meeting the criteria of the EPA (United States Environmental Protection Agency ^(2*)). For disinfection work, use disinfecting agents such as:

- Sodium hypochlorite, brands such as Clorox Bleach, which comes in concentration between 4.5% and 5.5%. This product should mix one part of hypochlorite with 10 parts of water. Disinfection is obtained with 0.5% sodium hypochlorite in water.
- Ethyl alcohol (70% Ethanol), to disinfect the laminate surface use this solution and a clean cloth.
- Quaternary ammonium at 0.1% concentration, it is recommended to use products such as Durobacter TC - 31 which comes with a concentration of 10% of active component, for this mix one part of the product with 99 parts of water and clean with a cloth soft.
- Hydrogen peroxide, this product contains hydrogen peroxide in a concentration of less than 3%, the solution is applied to the laminate surface with a clean cloth.

After 5 minutes of carrying out the disinfection process, the cleaning process should proceed, long exposure times of sodium hypochlorite, hydrogen peroxide, quaternary ammonium and other disinfection products can generate deterioration in the high pressure laminate.

(2*) <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

Chalk Board

Technical Bulletin



Cleaning And Disinfection Chart

| Product name | Active ingredient | Purpose | Recommended concentration (%) | Max contact time (minutes) | Formulation type | Should it be cleaned after using? |
|-------------------|---------------------|---------------------------|-------------------------------|----------------------------|---|-----------------------------------|
| Clorox Bleach | Sodium hypochlorite | Routine cleaning | <0,1 | N.A. | Dilute 1 part bleach in 50 parts water | No |
| Clorox Bleach | Sodium hypochlorite | Difficult stains cleaning | 0,1 | 3 | Dilute 1 part bleach in 50 parts water | Yes |
| Clorox Bleach | Sodium hypochlorite | Disinfection | 0,5 | 5 | Dilute 1 part of Bleach in 10 parts of water | Yes |
| Ethyl alcohol | Ethanol | Disinfection | 70 | 5 | Use 70% commercial formulation | No |
| Peroxide | Hydrogen peroxide | Disinfection | <3 | 5 | Use 3% commercial formulation | Yes |
| Durobacter TC- 31 | Quaternary ammonium | Disinfection | 0,1 | 5 | Dilute one part of the product in 99 parts of water | Yes |

Useful Cleaning Tips

To obtain the best results when clean the Chalk Board Laminate, it is very important to remind the following tips:

A Chalk Board Lam should NEVER be cleaned with products containing abrasives, metal sponges, sanding paper or Steel wool. Avoid strong acid or alkaline substances because the surface can be irreversibly stained.

Chlorinated substances can degrade and discolor the surface. Sodium hypochlorite must be used at concentrations under 5% allowing continuous contact not more than 5 minutes and, after cleaning, surfaces must be rinsed by using enough mild temperature water and soft clothes.

Hydrogen peroxide must be used at concentrations under 3% allowing continuous contact not more than 5 minutes and, after cleaning, surfaces must be rinsed by using enough mild temperature water and soft clothes.

When solvents are used, cloth should be very clean to avoid residual marks on the Chalk Board Lam. It is recommended to wash out and rinse with mild temperature water.

Do not use furniture restoration products or oil-based cleaning products because they tend to leave residual grease on the surface that traps dirty particles. Do not use metallic scrapers, metallic brushes or any other metallic tool to remove residuals from the Chalk Board Lam, like gypsum or dry paint because surface can irreversibly damage.

Chalk Board

Technical Bulletin



Cleaning Tips

At the beginning, use a dry cloth or paper towel, then use water between 35-40°C (95-105°F) with domestic soft soap or detergent, allowing to act until dirt starts to soften.

If dirty and blemishes remain, use a solvent like white spirit and, then use water between 35-40°C (95- 105°F) with domestic soft soap or detergent, permitting to act until dirt starts to soften. If dirty and blemishes remain, clean the surface with a soft cloth or use a 50:50 mixture of alcohol and organic solvent, so as not to affect its original tone and design. The resistance to staining is high however we DO NOT recommend its use on lab type work surfaces where they use oxidizing chemicals, alkalis and strong acids in their daily work.

Instructions For Removing Difficult Stains

Acetone or nail remover, alcohol, gasoline, turpentine, White spirit, trichloroethylene, perchloroethylene and thrichloroethane are suitable to remove neoprene residues.

3M Graffiti Remover, paint diluent or Hauser Vandal are some commercial substances that can be used. Remember to always rinse by using enough water.

Note: Product Brand names are only suggestions and its effectivity is not guaranteed.

It is the responsibility of the distributor / installer to verify the updated technical documents updated on the respective website. Visit us at www.lamitech.com.co for more information.

VERSION JUN2022 This document supersedes all printed and electronic technical and installation guides previously distributed by LAMITECH.

TECHNICAL DATA SHEET

| Test | Standard | Field | Unit | Lamitech h |
|---|-------------|--|---------------------------------|---------------|
| Density | ISO 1183 | Mass | g/cm ³ | ≥ 1.35 |
| Length and width | EN 438 2-6 | Size | mm | +5/-0 |
| Straightness of edges | EN 438 2-7 | Plate | mm/m | ≤ 1.5 |
| | EN 438 2-8 | Size | mm/m | ≤ 1.5 |
| Squareness | Lamitech | 1220 x 2440 mm | mm | ≤ 4.0 |
| | | 1220 x 3060 mm | | ≤ 5.0 |
| Resistance to surface wear | EN 438 2-10 | Initial point | Cycles | 300 |
| Scratch resistance | EN 438 2-25 | Final Wear | Cycles | 600 |
| | | Force | Newtons (min) | ≥ 2 |
| Surface quality* | EN 438 2-4 | Stains, dirt, similar defects on the surface | mm ² /m ² | ≤ 1 |
| | | Fibers, hairs and stripes | mm/m ² | ≤ 10 |
| Thickness | EN 438 2-5 | Size | mm | 0.7 ± 0.10 |
| | | | | 1.0 ± 0.12 |
| | | | | 1.2 ± 0.12 |
| Resistance to boiling water immersion | EN 438 2-12 | Appearance other finishes | Grade | ≥ 4 |
| High temperature dimensional stability | EN 438 2-17 | Appearance of edges | Grade | ≥ 3 |
| | | Longitudinal | % e < 2.0mm | ≤ 0.60 |
| Resistance to light (Xenon arch lamp) | EN 438 2-27 | Transversal | % e < 2.0mm | ≤ 0.90 |
| | | Contrast (Grayscale) | Grade | ≥ 4 |
| Resistance to dry heat (160°C/320 °F) | EN 438 2-16 | Appearance | Grade | ≥ 3 |
| Moist heat resistance (100°C/212 °F) | EN 438 2-18 | Appearance | Grade | ≥ 4 |
| Resistance to stains | EN 438 2-26 | Appearance group 1-2 | Grade | 5 |
| | | Appearance group 3 | | ≥ 4 |
| Resistance to impact by small diameter ball | EN 438 2-20 | Spring force | Newton (min) | 20 |

* The total allowable length of contamination may be concentrated in one defect, or dispersed in an unlimited number of smaller defects.