

CALME Installation Manual

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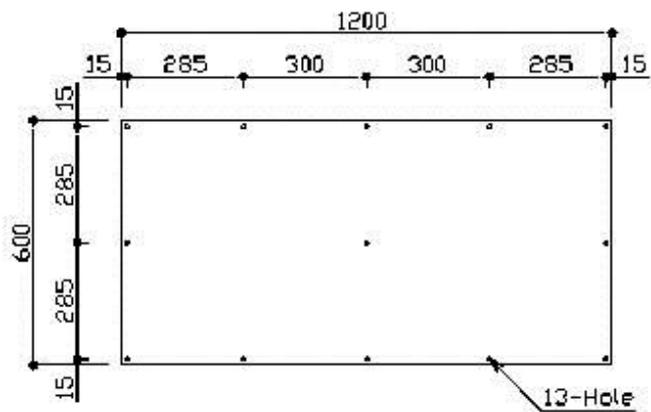
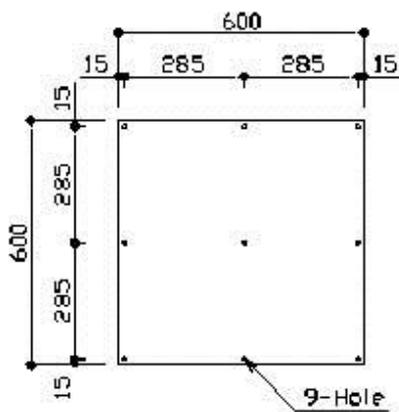
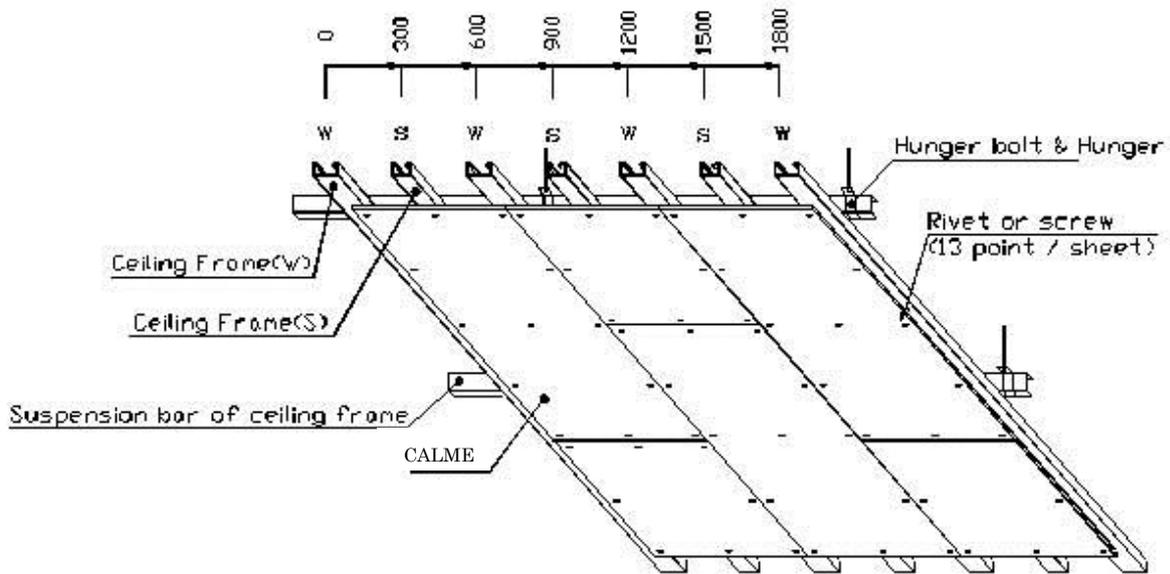
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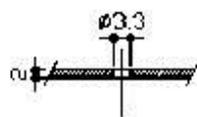
1. Installation Methods

(1) Installation with screws or rivets

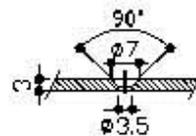
This method is suitable for high installation positions, pools, gyms and other places outside.



Location of hole for rivet or screw



Section of hole for rivet



Section of hole for screw

(2) Installation with glue

This method is suitable for low installation positions, or for places where the screws and rivets should not be shown on the surface. It does not work well for swimming pools.

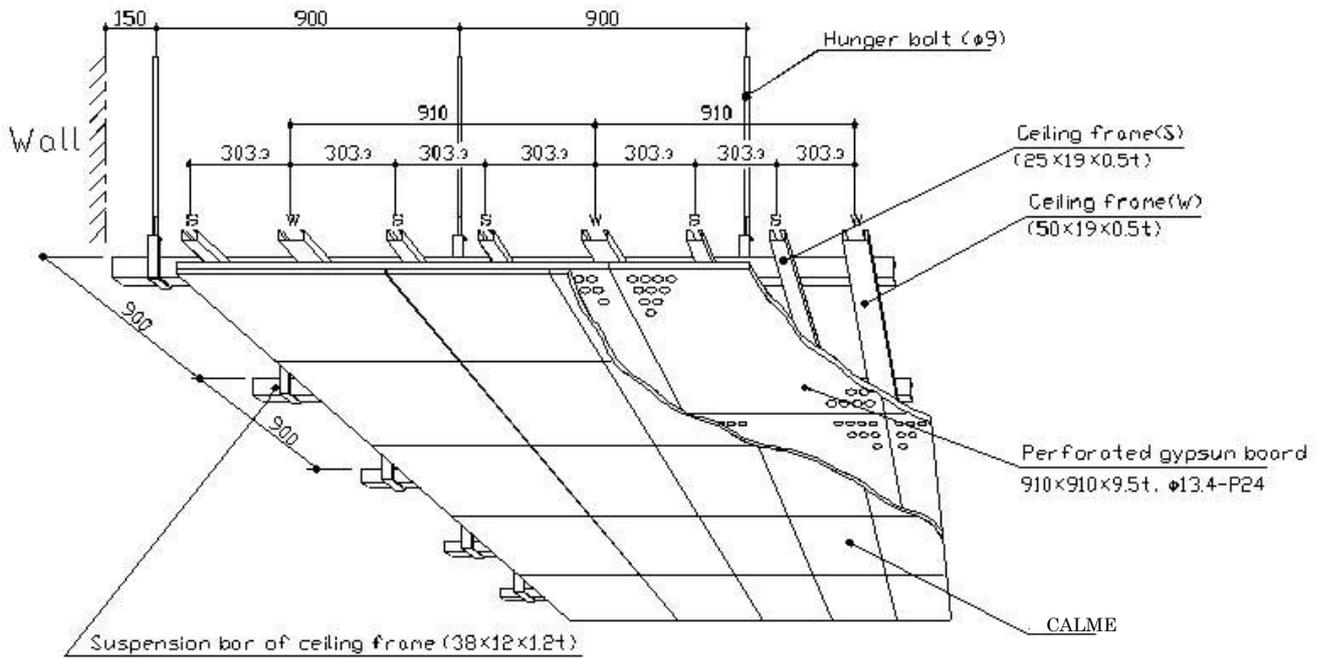
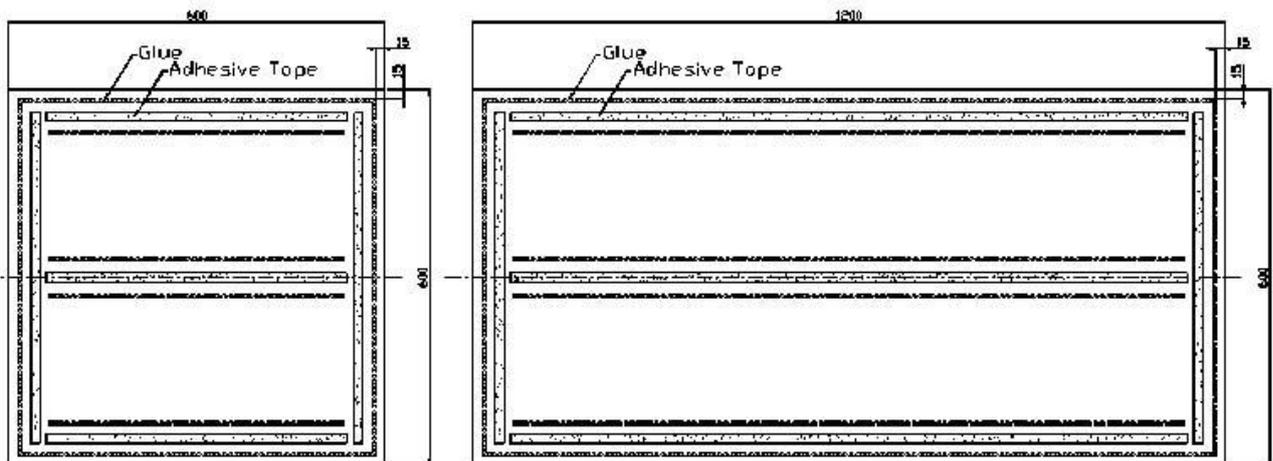


Fig. The pattern of glue and adhesive tape (Back of CALME)



Bonding Area=38800mm², Bonding Strength=38800x0.37N/mm²=14356N
 CALME Weight=3.5kg(600x1200x3t), Safety Rate=418

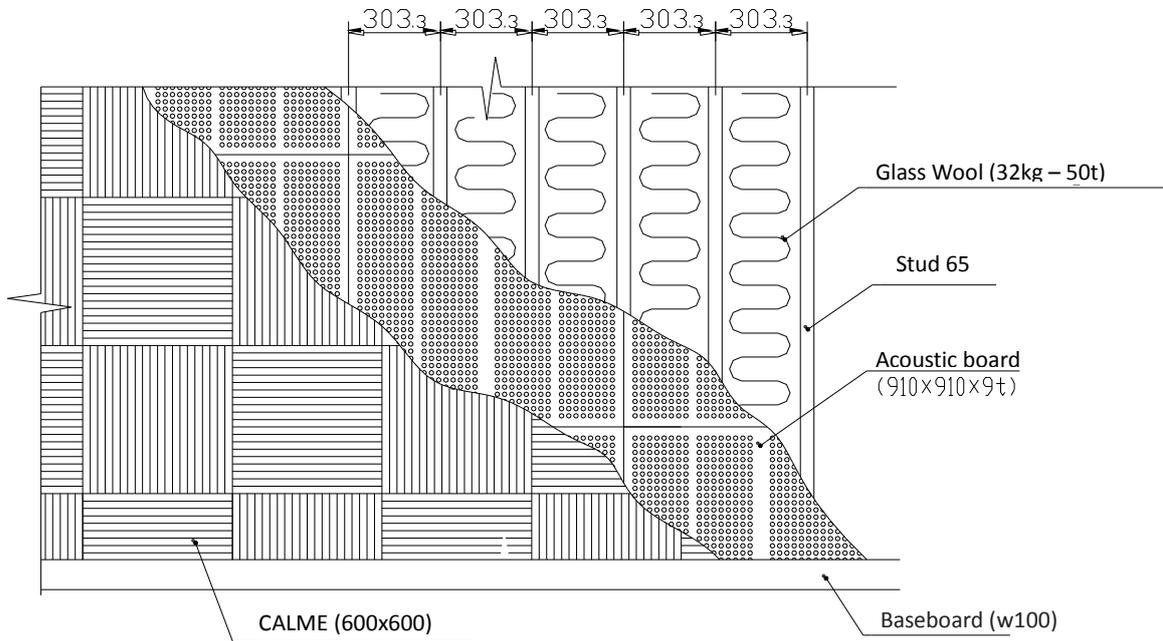
Glue: KONISHI MPX-1 (Silicon elasticity glue) or equivalent products.

Adhesive tape: KONISHI TM TAPE W1 or equivalent products. Website: <http://www.bond.co.jp>

(3) Examples of installation

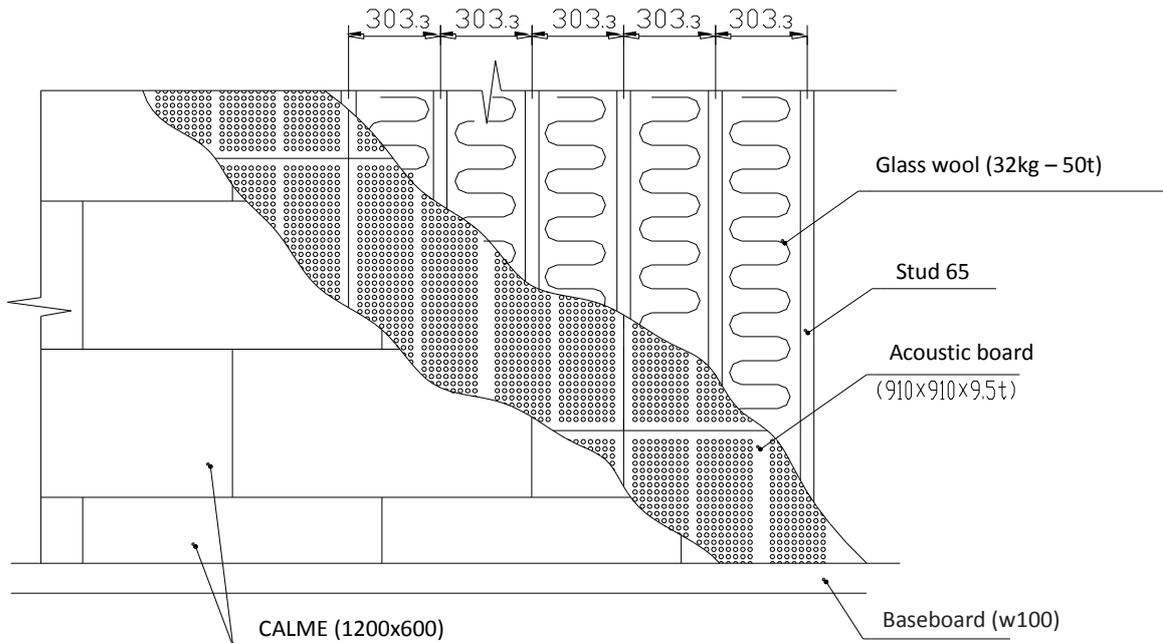
Checkerboard pattern:

Place corrugated textured CALMEs in alternate directions.



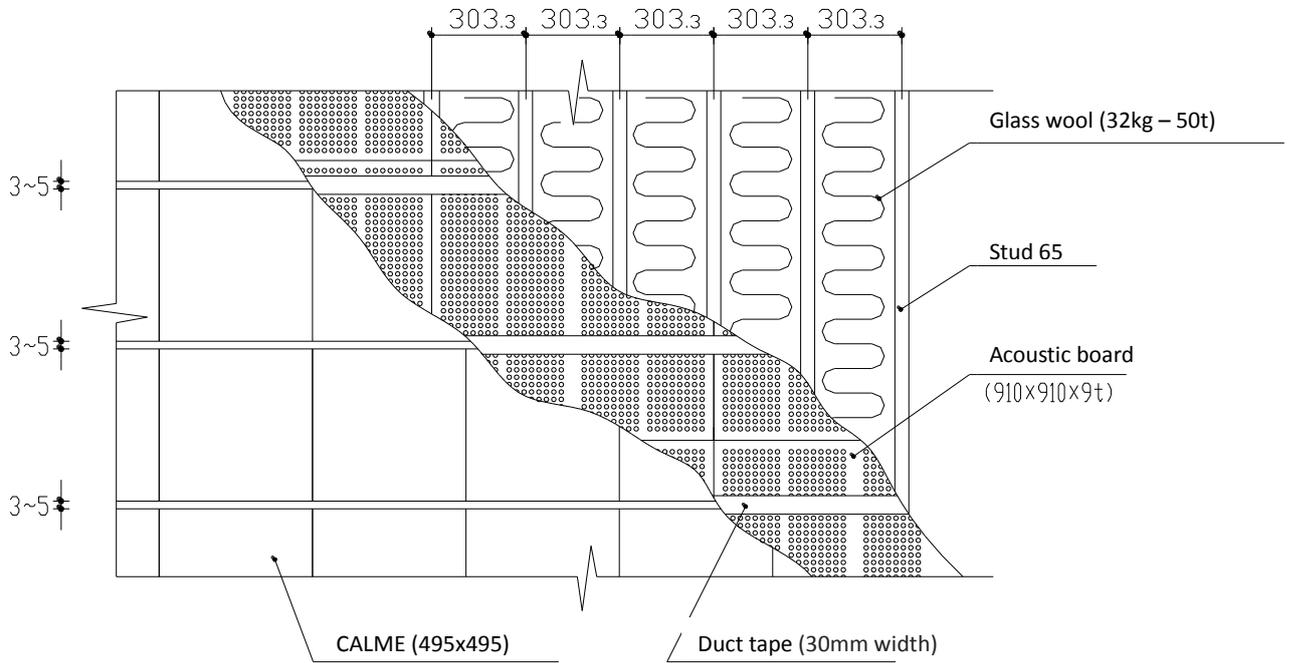
Houndstooth check pattern:

Place smooth CALMEs in mutually shifted positions vertically.

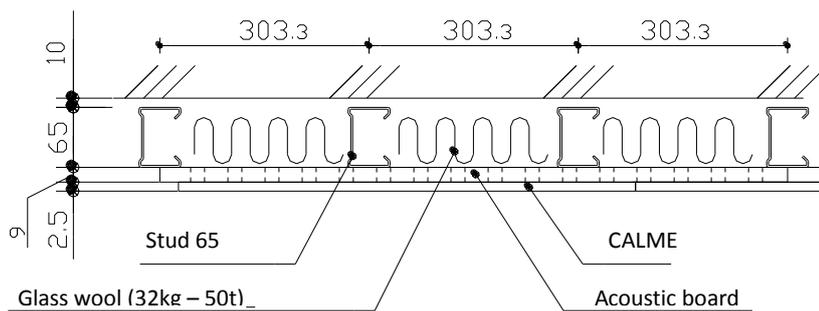


Joint pattern:

Make 3 – 5 mm spaces between each CALME or each row.



Cross section

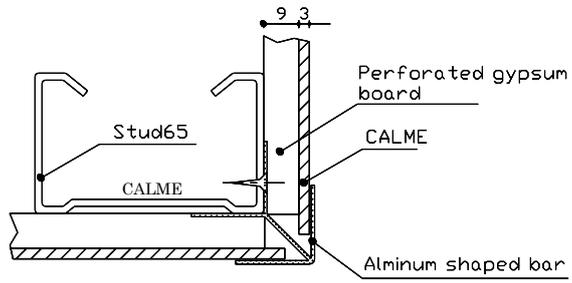


Note:

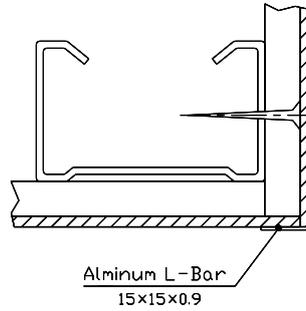
Glass wool is not necessary. Please use it as your sound absorption and thermal insulation requirements.

(4) Installation of edges and corners

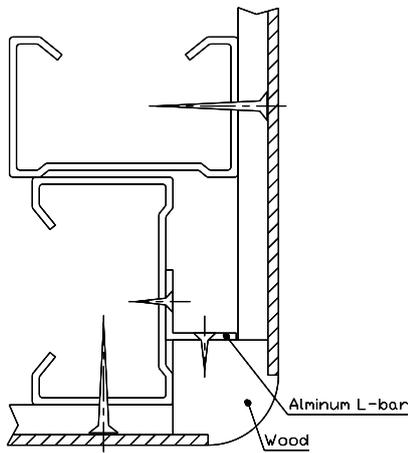
Outside Corner 1



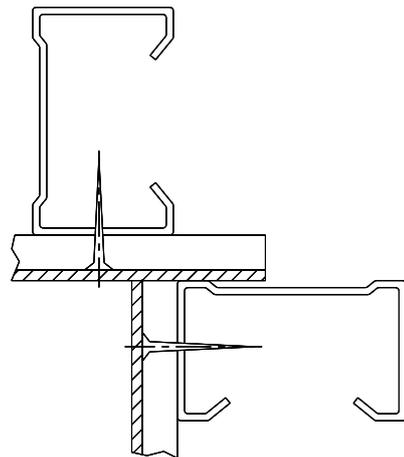
Outside Corner 2



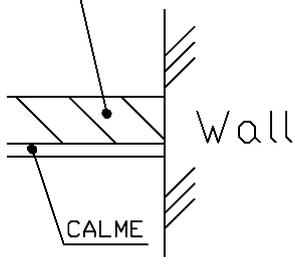
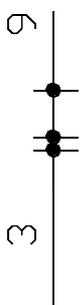
Outside Corner 3



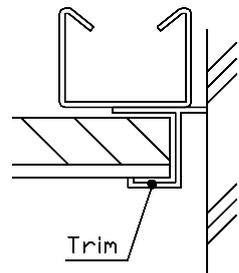
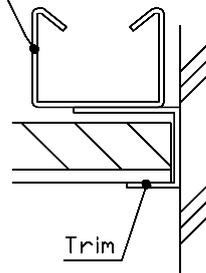
Inside Corner



Perforated gypsum board



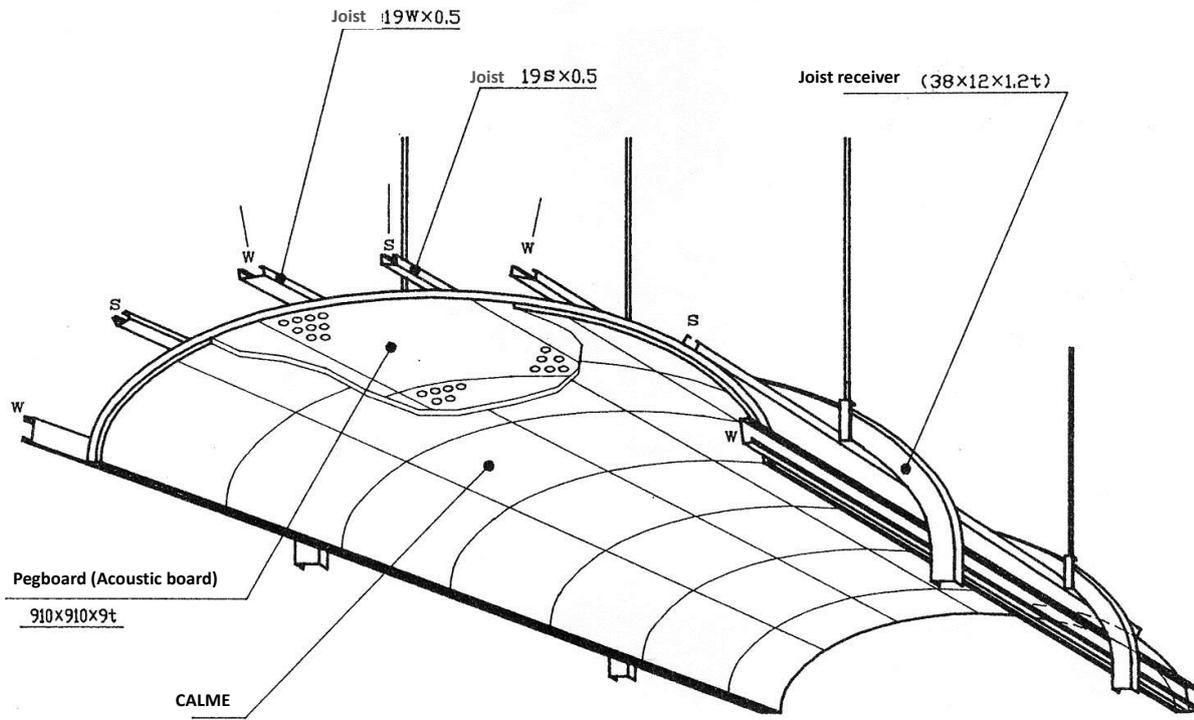
Ceiling furring



2. Curving, Cutting, and Drilling

(1) Curving

- CALME can be curved by pressing towards the baseboard if the radius is 8m or more.
- It needs to be processed with a machine for a smaller radius. (It works for 50R+.)



(3) Cutting

We use a shearing machine and a pressing machine to cut CALME at our factory, but you can cut it during the construction by following methods:

- Cutting with a utility knife
 - 1) Place a ruler and lightly cut it several times with a utility knife till the incision goes more than half of the thickness.
 - 2) Place the incision on the edge of a desk and bend it up and down to divide it.
 - 3) File it if necessary.
- Cutting with a metal slitting saw for aluminum

Special cutting:

We have a laser beam machine available for curved lines or any other irregular cutting.

(2) Drilling

Pilot holes can be easily drilled as a normal aluminum board.

- Less than 80mm diameter: Use a drill or a hole cutter
- Bigger holes for down light etc.: We have a pressing machine available in our factory

3. Painting

(1) Standard painting

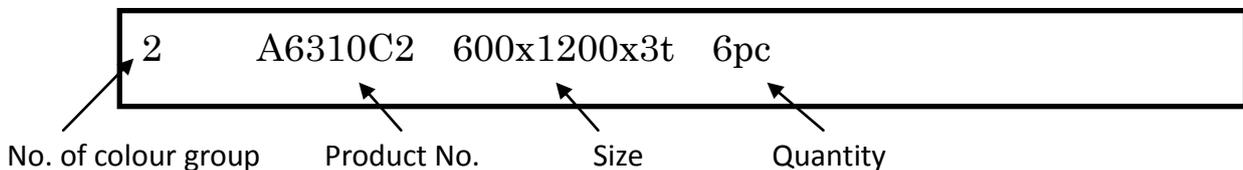
Standard colour is silver gray, and it is our original paint with aluminum flakes painted on acrylic resin base coating. The thickness of the paint is automatically controlled with a painting machine to prevent any effect on its sound absorbing performance.

(2) Colour painting

CALME can be painted in any colour. We offer you a sample with a specified colour for you to check it.

Note:

- A painted CALME looks a bit darker than a usual board painted with the same paint.
- The surface colour of each CALME is slightly different since it is a sintered porous material. We group painted CALMEs with an optical inspection machine and display the group number on the side of the carton. Please install CALMEs in the order of colour groups, as well as gathering each colour group together to avoid having clear hue differences.



4. Others

(1) Installing

Handling CALMEs with clean hands or wearing gloves is recommended for any dirt to be stained. We advise you to prevent oil stains since it is hard to remove in particular.

(2) Maintenance

- Cleaning

To clean a CALME, you can wipe the dust off with a cloth or rub the dirt off with an eraser if the dirt is stuck on it.

It is possible to paint it with water paints to hide the dirt if you could not remove it, but we do not recommend to painting it over.

Please do not clean with soap, as it can stain on CALMEs.

- Repairing

We can supply you a replacement for repairing when a CALME is damaged. Please send us a part of the damaged CALME as a sample for us to paint the replacement in the same colour.

(3) Heat expansion

Since CALME is made of aluminum, it expands by heat more compared to steel or other materials. It would therefore deform if the temperature of the usage environment is dramatically different to the construction environment.

It expands 0.6mm/1200mm by 20 degrees rise, so please install a gap between each CALME beforehand if a big temperature difference is expected.

5. Disclaimers

We do not take any responsibility for any trouble due to:

- The design and construction.
- The underlying and/or bonding materials.
- A natural disaster, fire, or any other inevitability.
- Aging and degradation over time.
- Intention or negligence of a user and/or a third person.
- Water leakage and/or indoor condensation.