

Construction Manual for CERARL: for Flat Surface

- ◎ Before construction, read the Construction Manual carefully for correct work.
- ◎ Be sure to hand the Instruction Manual included in the package to the client.
- ◎ Before construction, identify the part No. and check for damage and scratches which may be given during transportation. Note that we will not take responsibility for subsequent damage or defects.
- ◎ Construct the product in accordance with laws and regulations such as the Building Standards Act and the fire prevention ordinance of your own country.
- ◎ CERARL expands or contracts depending on change of environments. Be sure to contract in accordance with the standard construction methods and precautions.
- ◎ CERARL front surface is on the face where the protection film/part No. label is pasted.
- ◎ Do not construct the product on the moistened foundation, on the foundation having possibly to become moist after construction or in the place that will become hot and humid. (This may cause peeling.)
- ◎ At delivery, two or more workers are required to carry CERARL in the construction field because the product warps during transportation.
- ◎ Be sure to ventilate in the period of curing during and after construction.
- ◎ For the special adhesive agent, antibacterial, antifungal silicone and special primer, check the detail safety information at each SDS.
- ◎ Dispose the product as industrial waste, if required. (CERARL/ waste plastic, protective film/ waste plastic, corrugated cardboard cases/paper)

Safety precautions

The following precautions are given to prevent injury and accidents. Be sure to observe them.

Precautions

- **Do not use temporary tacking tape and adhesive agent other than designed special one.**
- Strictly observe the construction method of foundation designated by the material manufacturer.

Expected Risks

► Possibility to fall due to peeling

- Keep domestic heating cooking apparatuses away from the surface of CERARL at a sufficient distance. For details, see Page 4.
- As industrial heating cooking apparatuses have an extremely high calorific value compared to the ones for domestic use, we cannot use CERARL closed to them.

► Possibility of discoloration on surface

- During transportation and work, wear a pair of non-skid gloves. Also, wear a protective mask and protective glasses to protect dust generated at processing. Use a dust-proof circular saw in a well-ventilated working environment. If dust adheres to your skin or it is involved in your eyes, nose or mouth, immediately wash it fully off with water. If you feel something strange in yourself, receive medical treatment immediately.
- It may cut your hand with the cutting/processing edges. Be sure to chamfer the edges using sandpaper.
- Some designated special adhesive agent or primer to be used may contain organic solvent. Be sure to fully ventilate and take special care on fire when using them.

Possibility of injury or health disorder

Construction procedure



CERARL Spec

Item	Size(mm)	Packing
CERARL	thickness 3 (±0.3)	No. Box
	3'×8' : 935×2.455 (+2/-2)	

Related Materials		Size		Standard Applying Qty
Application Kit		Special adhesive 333 ml/pc		1pc = for 3'x8' 1 sht
		Special temporary tacking tape		1roll = for 3'x8' 1 sht
		Package with silicone	Antibacterial, antifungal silicone 320 ml/pc	1pc = for 12~15 m
			Masking tape	—
Antibacterial, antifungal silicone		320 ml/pc		1pc = for 12~15 m
Special temporary tacking tape		t1 mm x w20 mm x 10 m/roll		1roll = for 3'x8' 1 sht
Special adhesive	SE-1	333 ml/pc		1pc = for 3'x8' 1 sht
Base Paint for Wall	Solvent type	1 kg/can		1 kg = for 3'x8' 3~4 sht
	Water type	1 kg/can		1 kg = for 3'x8' 4~5 sht
Subsidiary Material	Alumunium	Flat Joint	L = 3.000 mm	—
		Edge/Internal Corner	L = 3.000 mm	—
	ABS	Flat Joint	L = 3.000 mm	—
		Edge/Internal Corner	L = 3.000 mm	—
	Special Chip Saw	Outer diameter 165 mm, number of blades 60T and 80T		—

Working tool

Use the following for the working tool.

To avoid chipping, select a new blade.

① Cutting

dustproof circular sawing machine (chip saw, diamond saw)

Cutting blades
at construction

The blade standard varies depending on “outer diameter”, “blade thickness” and “number of blades”.
Select a blade with “outer diameter” and “blade thickness” fit to the handy saw that you use. Use a tool with as many blades as possible.

special chip saw	φ100×1.1 mm×60P, φ125×1.1 mm×80P, φ165×1.6 mm×72P
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② Drilling

drill, hole saw, router, trimmer

③ Finishing

g sandpaper, miser, power planer, trimmer

Checking before Application

1

Checking foundation

Important

First, check whether CERARL can be constructed.

I

Checking foundation type

Unsuitable foundation

- Humid foundation
- Direct pasting to ALC framework is disabled.
- Direct pasting to Concrete wall surface is disabled.
- Direct pasting to decorated surface is disabled.

Constructible foundations

- Plaster board (more than 12.5mm is recommended)
- Mortar wall (moisture content less than 4.5%, stick strength 1.0/mm², flat surface finished by metal trowel, unevenness less than 2mm)
- Calcium silicate board (more than 6mm, specific gravity more than 0.8 is recommended)
- Plywood (more than 9mm is recommended)

Apply base paint for wall to whole surface

Precautions

※Select foundation materials and create structures in conformity with laws and regulations such as the Building Standards Act and fire prevention ordinance of your own country.

Fixing foundation materials to framework

1 Light weight steel frame structures

Use frame of 65 type or larger. Fix the foundation materials (plaster boards and so on) at 200 to 300 mm pitch with special screws.
* Securely fix the foundation material edges at frameworks, external and internal corners with special screws.

2 Concrete walls

Mortar walls

Select mortar having good adhesiveness to the Reinforced Concrete wall. Finish by masonry trowel to avoid unevenness.
* After the water content of mortar reduces to 4.5% or lower, start construction. (Adhesive strength: 1.0 N/mm² or more)

Wooden furring strips

Fix a furring strip of 24 mm x 45 mm to the framework at 300 mm pitch with anchors, cirques or screws. Fix the foundation materials (plaster boards and so on) with both special screws (at 200 to 300 mm pitch) and adhesive agent.

II

Checking foundation construction accuracy

- Check horizontality and verticality of the wall surface.
- Eliminate unevenness from the wall surface.

2

Checking the wall to be pasted

Construct the foundation structure of the kitchen walls in conformity with laws and regulations of your own country. To prevent extraordinary heat conduction to the CERARL surface, check that the following points are observed.

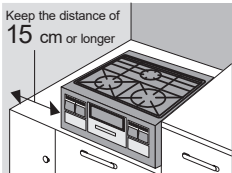
For a built-in type stove

- Please to keep the distance of 15 cm or longer between the CERARL surface and the stove side. If the distance of 15 cm or longer cannot be taken, discoloration or burnt deposits may occur on CERARL due to heat of the stove. To solve this, use a stainless panel. (Occurrence of discoloration or burnt deposits will not affect incombustibility of CERARL.)
- For a stovetop whose grill exhaust port is equipped on the back, exhaust from the grill makes the wall surface hot, which may cause discoloration or burnt deposits. When applying CERARL to a counter having depth less than 65 cm, use a stainless panel.
- Use a stainless panel in cases where the wall surface may possibly become hot.

For a stationary stove

- When the distance between the stationary stove and the wall surface cannot be kept 15 cm or more, use stainless panels to the side and back.

* Use stainless panels in conformity with laws and regulations. Confirm the regulations before use. Observe the structure in accordance with the regulations.



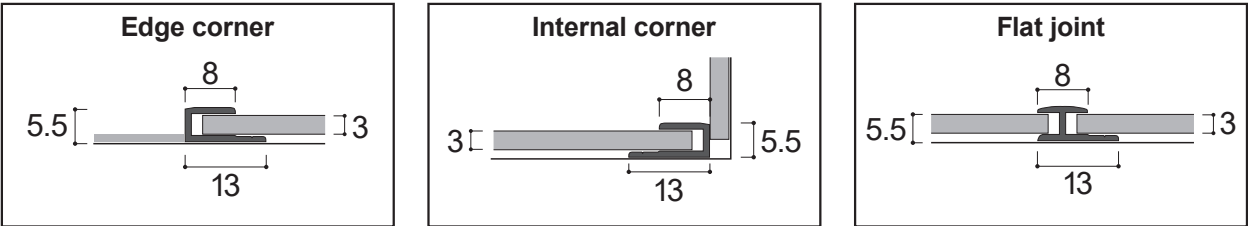
- * Even when all the above conditions are met, carefully examine that flames of the stove will never directly contact CERARL.
- * The wall surface structure around the stoves is regulated by the fire prevention ordinance or other regulations. Observe the structure in accordance with the regulations.
- * Do not use CERARL to the portions closed to industrial stoves or cooking appliances.
- * Be sure to avoid direct contact of heated pans to CERARL.

3

Checking fitting

1 Joiner drawing

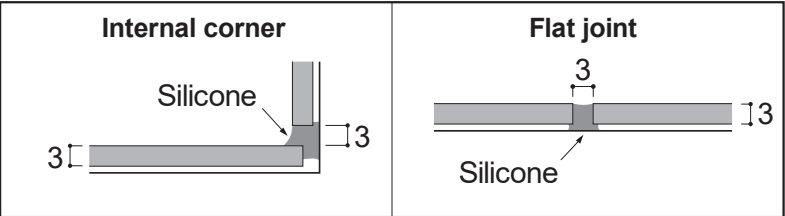
(unit: mm)



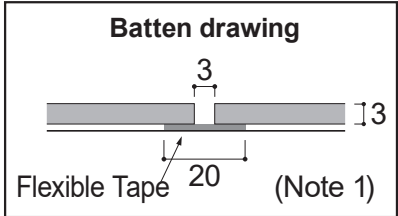
Precautions

- To fit with a joiner, insert it into CERARL before construction. Fix the joiner securely using a double-sided tape.
- For construction around water areas, be sure to pour silicone into the joiner before starting construction.

2 Sealing drawing



3 Batten drawing



Note 1: For fitting with batten, use a joint bottom tape with width of 20 mm. If a wider joint bottom tape is used, poor adhesiveness may occur.

Precautions

- Do not put CERARL closely. This may cause CERARL to extend with protrusions at high humidity, or to contract with clearances at low humidity.

Application method

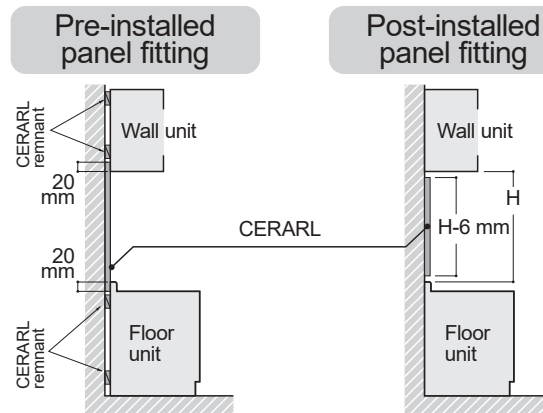
1 Allocation and primer foundation work

Observe the following precautions to perform cutting, drilling and notching.

Precautions for Allocation

- Allocate CERARL so that it does not overlap the foundation material joints.
- CERARL cannot be put closely. When constructing with silicone and clearances, keep 3 mm or wider joints. Also, when constructing with joiners, be sure to have a clearance.
- Allocate CERARL to minimize wastes with due considerations of the opening position and appearance.

Foundation for Kitchen



- For the fitting to the pre-installed panel, allocate CERARL by inserting by 20 mm to the hanging shelf and top plate. For the fitting to the post-installed panel, allocate CERARL by removing 3 mm displacement.
- Remove 3 mm displacement for symmetric allocation.

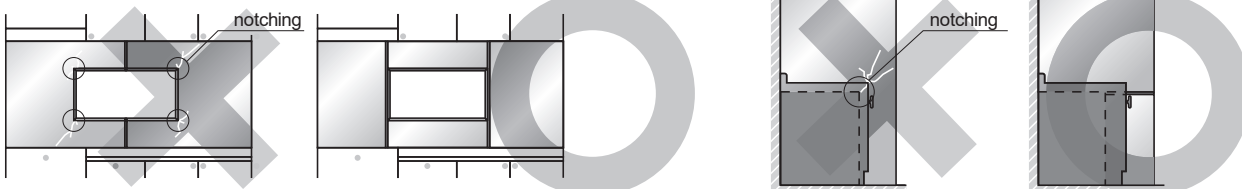
For Mortar wall / Calcium silicate board Plywood Foundation

Apply base paint for wall to whole surface before applying CERARL.

Precautions

- Use base paint for wall without dilution.
- Paste CERARL within 4 hours to 7 days after applying base paint for wall.
- Since the drying state varies depending on the environments, be sure to confirm that primer is completely dried and then go to the next process.* Use primer at 5°C or higher temperature

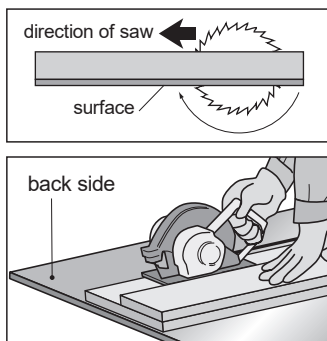
Notching section drawing



- When a notching section is large as shown in the figure above, cracks may occur. (In the case as above, select allocation with multiple pieces instead of notching.) See pages 6.

2 Cutting and machining

Observe the following precautions to perform cutting and machining.

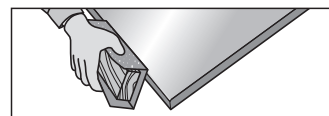


Precautions for Cutting

- To cut CERARL, put it on a hard, heat insulating material with a splint. Be sure to insert the cutter from **the front surface** and take it out from the rear surface. (A protective film is applied to the front surface.)
- Even with a protective film provided, pay a special attention to cut CERARL.

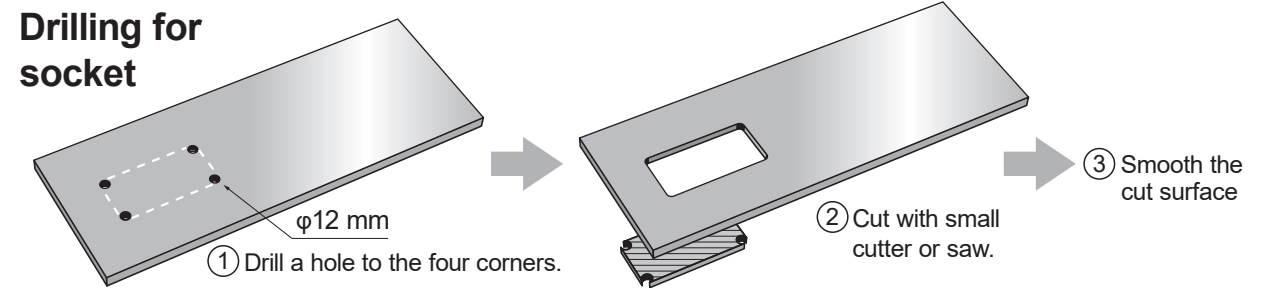
Chamfering

- **Lightly chamfer** a cut section using fine sandpaper fit to the splint.
- For fitting with clearance and fitting with sealing, **lightly chamfer** uncut sections, too.

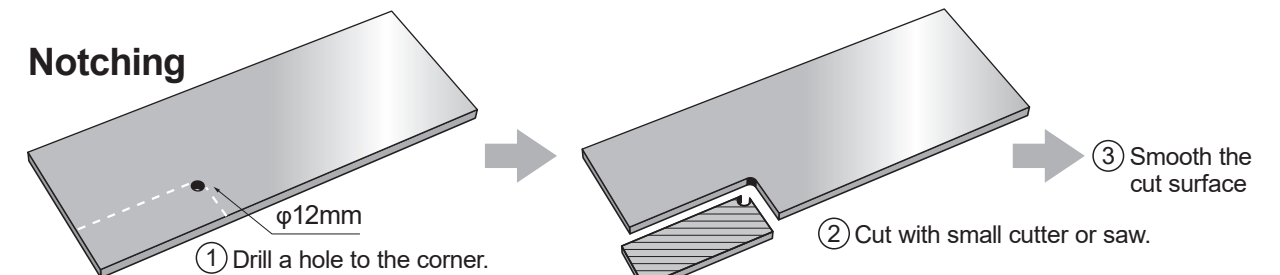


Precautions for drilling and notching

Drilling for socket



Notching



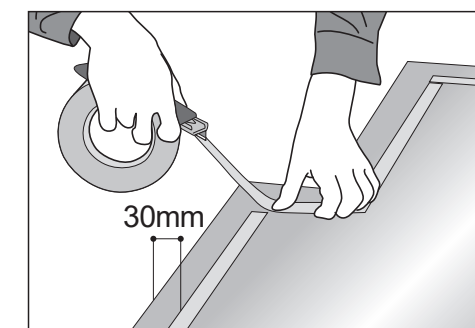
Caution

When **cutting at a pin angle** as shown at right, cracks may occur.

- In the case as shown at upper right, select allocation with multiple pieces instead of notching.

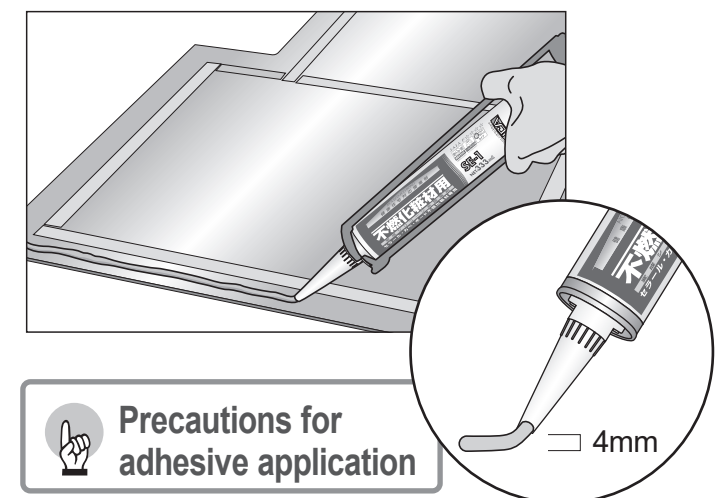
3 Pasting temporary tacking tape and applying adhesive agent

Observe the following precautions to paste temporary tacking tape and apply adhesive agent.



Precautions for tape pasting

- Space a 30-mm area at edge of CERARL to apply adhesive agent. Then, paste a temporary tacking tape except for that area.



Precautions for adhesive application

- Apply adhesive agent with **4-mm height**.
- Be sure to apply adhesive agent to **the periphery** of CERARL.
- For a guideline, the application volume is one AICA Eco Bond SE-1 for a piece of CERARL of **935 mm x 2455 mm**. Insufficient application volume may cause peeling or other failures.
- Paste and crimp CERARL **within 10 minutes** after applying Silicone Resin Type SE-1.

【Standard Application Pattern】

CERARL (back side)
Guide:

Adhesive

Temporary tacking tape

〈Drilling for socket〉

Be sure to apply adhesive agent linearly at edges.

Be sure to apply adhesive agent wavy around the center.

Enlarged drawing of hole

〈Standard〉

Be sure to apply adhesive agent linearly at edges.

Be sure to apply adhesive agent wavy around the center.

〈Notching〉

Be sure to apply adhesive agent linearly at edges.

Be sure to apply adhesive agent wavy around the center.

● Reinforce the openings and notches with a temporary tacking tape and adhesive agent. (Take the same measure when pasting a temporary tacking tape and applying adhesive agent to the foundation.)

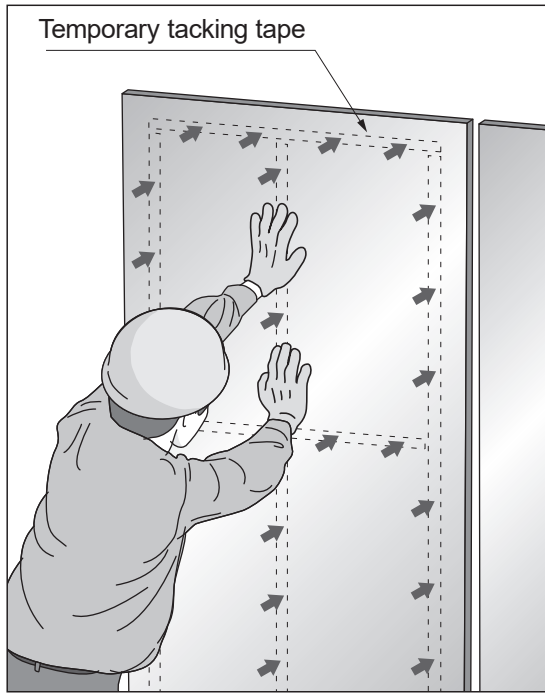
4 Pasting and crimping

Observe the following precautions to perform pasting and crimping.



Precautions for pasting

- When pasting CERARL, be careful not to generate a float in the center.
Two or more persons are required for pasting. Concurrently, be careful not to generate distortion at the openings and notches. (This may cause cracking after construction.)
- Once the temporary tacking tape adheres to the wall surface, it cannot be adjusted.



Precautions for crimping

- Push the temporary tacking tape securely.**
- Remember that, by pushing the area where adhesive agent is applied, CERARL may be forcedly parted.

5 Sealing

Observe the following procedure for sealing (for silicone finish)

1

2

3

apply primer
masking tape

silicone

Precautions

Sealing for internal corners

- Since the surface of CERARL has a poor adherence to silicone, be sure to use sealant to apply silicone to the surface of CERARL.

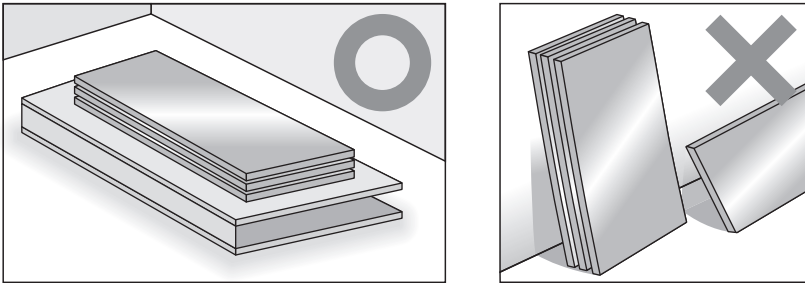
6 Peeling a curing film

After curing for 2 days, peel the protective film from the surface.

Storing stocks

- ### Precautions

 - Store stocks in a well-ventilated indoor place without exposure to direct sunlight or rain.
 - Do not put stocks directly on the ground. Stack them flat on the pallet in a flat place.
- Never lean stocks against the wall, which may cause warp.



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