

To retain the performance of exterior walls, appropriate maintenance is important for any longer-life residential houses.

Natural environmental conditions including sunlight, and weather along with the maintenance level, largely affect the lifetime of fiber cement sidings.

As a way to extend the lifetime of residential houses, appropriate maintenance is important to retain the performance of exterior walls including their appearance, waterproof performance, fireproof/fire-resisting performance, and wind pressure-resisting performance, which can be maintained for years.

*** Owners are responsible for conducting an inspection.**

(1) To fully bring out the function/performance of NICHIIHA Panel.

(2) To prevent a failure caused by NICHIIHA Panel.

(3) To prolong the life of NICHIIHA Panel.

Indication of inspection timing

Conduct the first inspection at the time of moving in, and follow the maintenance schedule shown in the following table as a guide for the subsequent inspections.

Inspection method for exterior walls

In the inspection, check the condition of the body and coating of NICHIIHA Panel, sealing, and attachment members.

(1) Inspection of NICHIIHA Panel body

Check visually for defects such as cracks or chips on NICHIIHA Panel.

In the inspection after an earthquake, carefully check for cracks in peripheries of nails or misalignments of boards.

(2) Inspection of NICHIIHA Panel coating

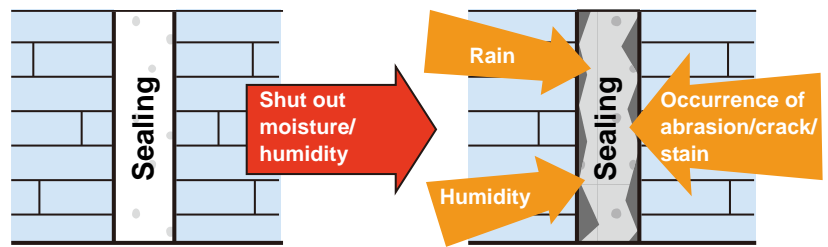
If stains, fading of color, or bleached phenomenon on the coating surfaces become apparent, it is the time for recoating. Conduct the inspection referring to the maintenance schedule.

(3) Inspection of sealing

Check visually the sealing for abrasion or cracks.

(4) Inspection of attachment member

Check for rust on metallic members and chips on decorative members.



Aging of sealing

Cut/crack of sealing

* If filed coating is applied over sealing, the coated surface or sealing may be cracked depending on the movement of the building and temperature/humidity.

* If any problem is found in these inspections, consult with your building contractor/specialty company and care for the problems early by recoating or replacement of sealing. The maintenance expense is the responsibility of the client.

Maintenance schedule

* Please use this maintenance schedule for guiding purpose only.

Passage of year		5year	10year	15year	20year	25year	30year	35year
Over 16mm thickness	Platinum-Coating	●	●	●	●	●	■	●
	Ex series (V series)	●	●	■	●	■	●	●

— Dairy check / Partial repair ● Regularly check ■ Replace sidings ■ Re-paint

■ NICHIIHA Panel material

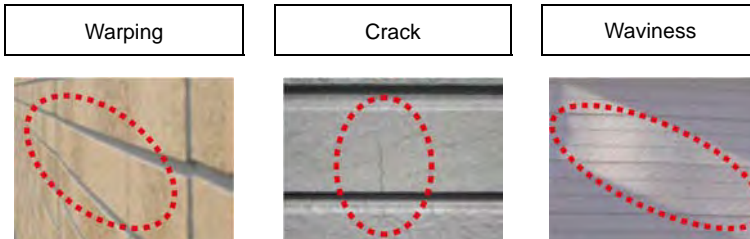
(1) Base material

After the construction of a residential house, slight warping, fine cracks (hair cracks), or waviness may be generated on NICHIIHA Panels over time. Also, cracks may be found especially after an earthquake or typhoon, so please conduct inspections.

However, the panel's performance as exterior walls is not significantly deteriorated by such problems.

(2) Surface coating

The coating deteriorates over years due to the effect of rainwater or ultraviolet light (cracks/low gloss/fading of color). As a guide to homeowners, it is recommended an inspection be conducted roughly once a year.



(3) Sealing joint

The sealant-joints deteriorates over time, and "cut" or "abrasion" may occur due to the shock of an earthquake.

(Data source: JAPAN FIBER REINFORCED CEMENT SIDINGS MANUFACTURERS ASSOCIATION)

* If any problem is found in these inspections, consult with your building contractor/specialty company and care for the problems early by re-coating or replacement of sealing. The maintenance expense is the responsibility of the client.

■ Daily maintenance method

(1) Cleaning of NICHIIHA Panel

- If dust or dirt is found on panels, clean it off as necessary.
- Wash fiber cement panels with water and a soft brush. During cleaning, be careful not to damage the coated surfaces. DO NOT use high-pressure water (50 kg/cm² or higher) or steam cleanings as it may negatively affect the coating.

- In case of local stains (especially bird dropping or mold) within your reach, soak a cloth with diluted neutral detergent (kitchen detergent) and wipe off lightly with the cloth.

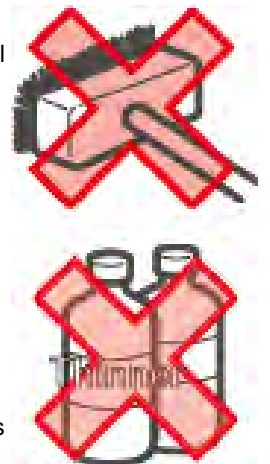
If algae or mold is found on the panel surface, please wipe off with a soft cloth soaked with neutral detergent. Using a chemical that kills algae and molds may reduce the growth, but traces will remain. Also be careful as there is a danger of damaging the panel itself.

Note that detergent may affect the color tone of fiber cement panels after cleaning.

To clean spots out of your reach, please consult with your prime contractor.

For Nich Guard products, wash them with water only. DO NOT scrub with a brush.

- When rinsing the panels with a hose, make sure to spray from the top to the bottom. Avoid watering from the bottom to the top with high pressure as it may cause leakage through jointed parts.
- If fiber cement panels used as foundation or under the roof become partially covered with snow, or if snow is partially drifted in the inside corners, remove the snow frequently.



(2) Precautions for additional construction

- When installing a signboard or air conditioner afterward, avoid fixing it directly to the panels. Make sure to fix it to the appropriately reinforced building substrate.
- In situations in which a new building is connected to an existing building by extension or reconstruction, the difference of movement between these buildings may cause a problem with the panels such as a crack. Make sure to use expansion joints between the joint parts.

Maintenance precautions

- (1) For maintenance work, consult with your house builder/building contractor who built the building.
- (2) Choose the sealing material from Nichiha's genuine product line in principle. If that is not possible, please choose a product recommended by the JAPAN FIBER REINFORCED CEMENT SIDINGS MANUFACTURERS ASSOCIATION.
- (3) At the time of recoating fiber cement sidings, it is recommended to inspect, recoat, or replace decorative members (gable, kneehole panel, pilaster etc.) and metallic accessories (flashing materials, J-Channels etc.).

Please consult with a specialty company for recoating or repairing works.

- For recoating/repair work, consult with a house builder/building contractor and then ask for a specialty construction company.
- Please DO NOT recoat or repair by yourself. Work at a heights may cause a falling accident or injury.