

The commonly applied wall materials

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Several commonly applied exterior wall materials do not appear too much condition during the inspection. Such as metal, vinyl and fiber cement should be called low maintenance sidings in my point of view. Let us touch them a little bit which may help you to know and maintain them.



Most chances we saw the existing metal siding is aluminum board horizontally installed by overlap. It was popular between 50s and 70s due to its durability, light weight and easy installation. But it got slow down thereafter since the material cost kept going high and the high energy consumption was in the production. On the contrary, vinyl siding started taking the market since emerging in 50s because of its cost and installation, especially after improvement in 70s, which got rid of the premature failure by the attack of UV, as well as crack and deformation from mechanical impact. Theoretically it could last 40 to 60 years thereof it replaced metal siding and became the dominant wall material in 80s. The deficiency of these 2 materials is mainly related to installation. For example figure 1 the fastener is too tight to allow the siding movement by thermal expansion, which bent the board finally. Figure 2, the loose installation caused siding displacement by impact or wind. By contrast to other siding materials these 2 are easy to get mechanically damaged from bikes, ladders even the ball. Also, in a certain area exposed to UV or moisture or vegetation, the siding color fading or discoloration could happen. This could be barely restored if vinyl. Aluminum could be repainted but this is not easy.

Fiber cement siding is existing on the market over 50 years, which is as popular as vinyl and stucco for its good weather ability, ventilation, fire and decay resistance as well as paints compatibility. It could last 30-50 years and cost competitive. We can see lots of new building construction with this kind of siding. It is similar as vinyl and metal. The installation mainly decides the effectiveness and service life. For example the high quality fasteners such as hot dip nails have to be adopted. The flat head nails are supposed to flash with the board or panel. Too tight may crumbled nail holes. The nail loose or not in place could cause the siding overlapped damage by any mechanical impact which is the most weakness to be avoided figure 3. The joints between boards/panels should keep 1/8" space for movement. There are 2 theories to address joints. One is to do the caulking and painting. The other is to do the flashing under each joint. This could be simply a small piece of building paper. In terms that caulking can always open or break, the rear looks a better solution. In fact, no matter which component or structure on building, caulking is always a remedy of leaking. We prefer the entire protection through good configuration.

One more reminder, any siding should leave 6"-8" space to grade in order to avoid moisture damage & and keep it ventilated to dry fast. Once there is stain or moss/mold on walls. It could be washed by detergent or bleach solution but no power wash.