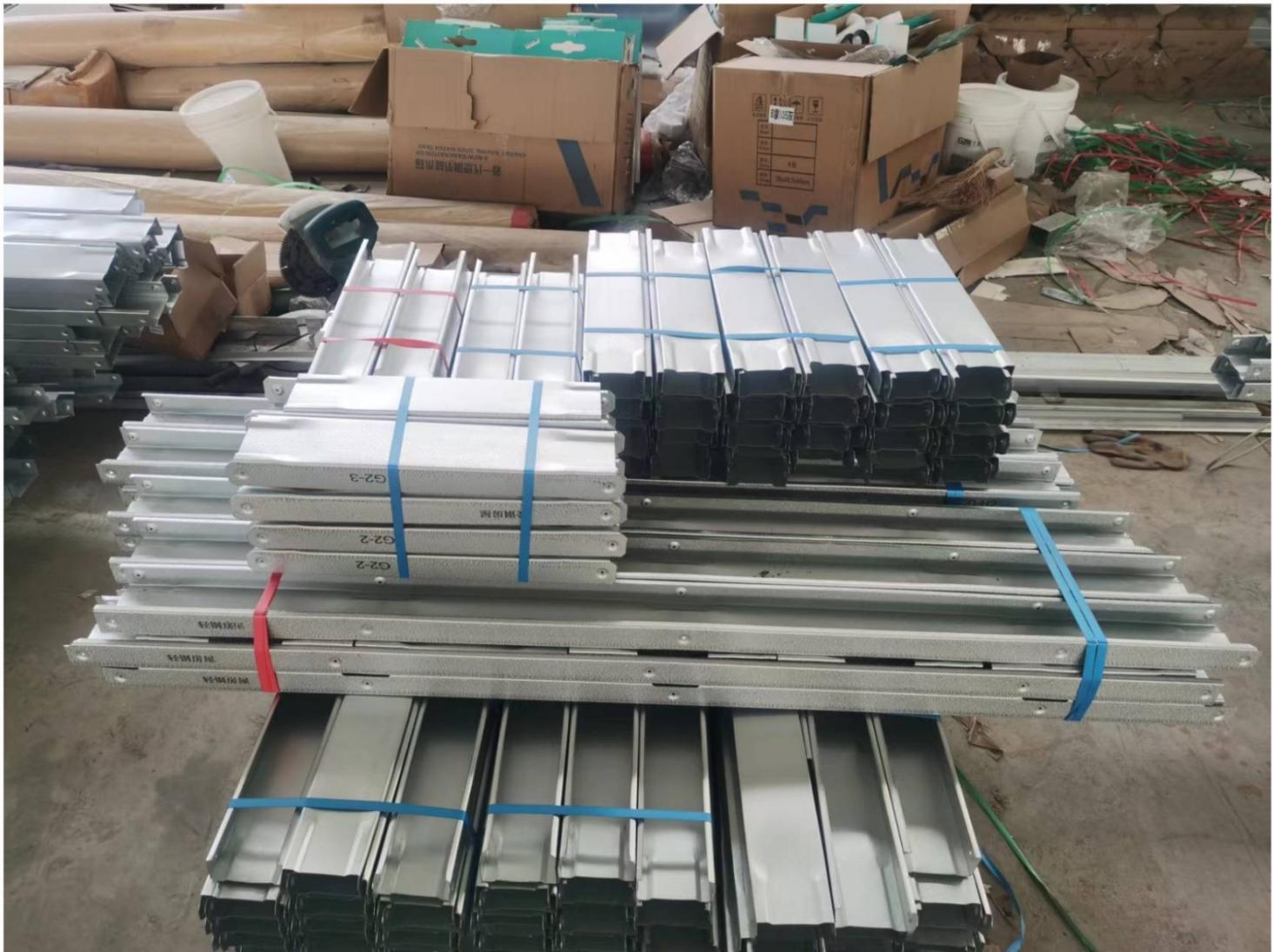


The light steel villa is constructed with light steel sections that are prefabricated with precision, each piece having an ID which corresponds with engineering instructions. These are screwed/ bolted together.





The corrosion protection of light steel villa frames relies on a triple protection system: galvanized base material, surface coating protection, and moisture-proof installation. Combined with the inherent material properties of light steel, this effectively guarantees a frame lifespan of 50 - 70 years.



Material Selection: High-zinc steel with a zinc coating  $\geq 275\text{g/m}^2$ , formed through hot-dip galvanizing to create a dense oxide layer, providing over 50 years of corrosion resistance in humid environments.

Aluminum-zinc alloy (55% aluminum-zinc alloy) offers 4-6 times the corrosion resistance of pure zinc plating, suitable for coastal areas with high salt spray.





Surface coating: A dual coating of primer and topcoat is used, such as epoxy zinc-rich primer (80 $\mu\text{m}$ ) combined with polyurethane topcoat (100 $\mu\text{m}$ ), forming a physical and chemical dual barrier.

