





## Green Energy

# Metal Frames for Solar Panels



Location	Japan
Environment	Outdoor
Grade/surface	Duplex (21Cr-2Ni-N)
Manufacturer	Co-max Co.,Ltd.
Material supplier	Nippon Steel and Sumikin Stainless Corporation
Source of information	JSSA

Until recently, the principal materials for frames and mounts for solar panels have been pre-painted or coated carbon steels. The use of austenitic grade 304 stainless steel in this area has been limited for price reasons. But carbon steel frames and mounts are susceptible to corrosion, especially in coastal environments. Even coated or painted surfaces can exhibit signs of corrosion if the surface is scratched or damaged. Against this background, a grade of duplex stainless steel has been developed for this application, providing the strength and durability to withstand corrosive attack, even in harsh environments. The strength of the material has allowed designers to select much thinner gauges, thus saving on material weight, which in turn has led to more efficient handling and reduced costs. In addition, efficiency in construction and installation has been increased and transportation charges have been lowered. Using a proprietary processing technology, coils are cut and processed to the required sizes, minimizing material loss and contributing to reasonably-priced stainless steel frames and mounts. This product is experiencing significant growth in this very competitive market.