

Pre-finished steel

Post versus pre-finished steel

Pre-finished steel

Pre-finished steel is a strip steel product with a number of paint layers and treatments applied in a highly automated and carefully controlled manufacturing process. Pre-finished steel can provide a number of benefits over post painted steel including;

Environmental advantages

- Lower effluent disposal meaning hazardous waste disposal costs are eliminated
- The recyclability of pre-finished steel is easier as no hazardous pre-treatments are involved
- Eliminates compliance to painting legislation
- Eliminates need to store hazardous chemicals
- Pre-finished steel from Corus is RoHS compliant

Manufacturing productivity advantages

- Reduces manufacturing cycle time (pre-finished steel reduces the number of steps involved with incoming material to finished products)

- Less work in progress reducing the amount of stock held on the floor
- Increased flexibility of scheduling
- Minimised rework costs as onus is on the supplier
- Less handling between processes and therefore less damage
- Reduction of colour change time
- Guaranteed supply chain

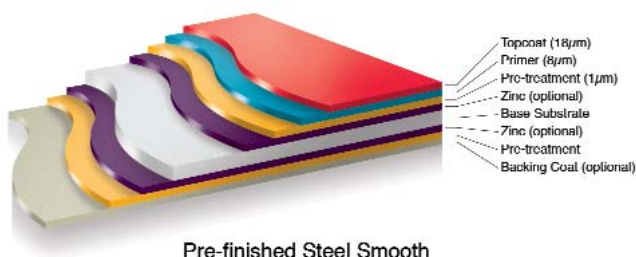
Technological advantages

- Excellent opportunity for productivity improvements
- Joint R&D facilities
- Coatings developed for specific applications

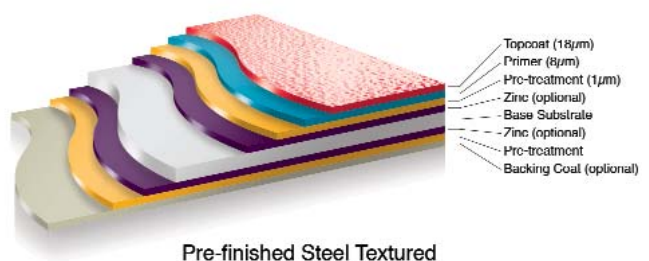
Product and design advantages

- High reflectivity paint finishes
- Range of gloss finishes available
- Wide variety of finishes and effects
- Uniform paint thickness and surface finish
- Batch to batch coil consistency

Pre-finished steel smooth layers illustration



Pre-finished steel textured layers illustration



Frequently Asked Question's

Is corrosion resistance better with pre-finished steel?

It is important to note that pre-finished steel, even with bare edges, has shown better corrosion resistance than post painted steel because there is less undercut and blistering. The sophisticated technology in the coil coating process prevents spread of corrosion at the paint /substrate interface so cut edges and scratches have better corrosion resistance. In addition, technology has moved forward with corrosion resistance on primer coatings and Cold Reduced (CR) is now available for applications previously recommended as Hot-Dip Galvanised (HDG) only.

Is the paint finish consistent and uniform?

The finish with pre-finished steel is consistent between batches and throughout the finished coil.

What colours are available?

Almost any colour, shade or tone can be achieved with pre-finished steel. There is a standard range of colours and non-standard colours can be developed on request.

How can bare edges be overcome?

If the cut edge is an aesthetic issue, it can be hidden, folded, roll formed, or tucked away so that the bare edge can be kept out of sight. If there is concern about performance, it can be roll formed so the edge is not exposed to a corrosive environment. Research from the NCCA has shown that pre-finished steel is proven to corrode significantly less than post-painted steel with no exposed edges.

Do I have to change my current tooling?

The same tools for pre-finished steel can be used as unpainted steel. The tools need to be in good condition with no scratches, so normally a clean and polish is all that is necessary. As the pre-finished steel surface is smooth and self-lubricating, tools used are normally cleaner and last longer than when they are used with oiled unpainted steel.

How can pre-finished steel be joined, formed and bent?

Pre-finished steel can be bent, shaped, drawn, deep drawn, roll formed or folded. Almost any shape that can be made with steel can be made using pre-finished steel.

Pre-finished steel can be joined using a range of methods. Mechanical fastenings or welding can be used and still retain a flawless finish. Popular techniques also include integral joining methods such as Tog L Loc, Eckhold and Tox.

In addition, adhesive bonding is also a genuine alternative method of joining pre-finished steel. There are a range of adhesives and double-sided tapes to chose from and this method has become popular when used with mechanical fixing on larger areas.

What applications can pre-finished steel be used for?

Pre-finished steel can be used for many applications in various sectors including; domestic appliances, office furniture, lighting, niche construction and air-handling.

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