

Manufacturing Technology - Panel

A brief process description is as under:

- 1) **Loading of Components:**
The Panel components including Flat parts (Doors, Rear Panels, Top & Bottom Covers, Gland Plates, and Side Panels etc.), Compact Enclosures are loaded at this stage.
- 2) **Pre-treatment – Stage I:**
In this zone, all the oil, grease and foreign impurities are cleaned.
- 3) **Pre-treatment – Stage II:**
This is done in different stages using water jets, which flush down all chemicals from stage I on the surface or the edges.
- 4) **Pre-treatment – Stage III:**
This is done in different stages using fresh DM water jets, which flush down all chemicals from stage II on the surface or the edges.
- 5) **Pre-treatment – Stage IV:**
Here the panes are uniformly coated with a special Nano-ceramic coating Bonderite NT-1 (replacing the commonly used phosphating process) applied by high-pressure jets.
- 6) **Pre-treatment – Stage V:**
This is done in different stages using water jets, which flush down all dissolved salts on the surface or the edges.
- 7) **Pre-treatment – Stage VI:**
In this final pre-treatment stage fresh de-mineral water jets are used.
- 8) **Baking:**
The dip-coated component is then sent through an oven for baking at 180°C for 10 minutes..
- 9) **Powder Coating:**
After EC dip coating and baking the conveyor with the panels are moved automatic powder coating booths.
- 10) **Baking:**
The powder-coated components are then finally sent for oven baking at 180°C for 10.

Inspection and Testing: All the final products ^{like} ~~are~~ inspected and tested as per the requirements.

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