

## ElectroChem Technologies India Private Limited

## <u>ECT EcoCoat 555 – Feature Benefit Analysis:</u>

- New economical, user friendly & environment friendly pre-treatment process for multi metals based on Trivalent Chrome
- Can be used for EG, CRS, HDG and Aluminium, thereby eliminating need for separate lines for different metals
- · Creates a visible layer for easier identification
- · Produces uniform, compact Nano size coating
- · Simple process to operate, reducing the need for extensive laboratory analysis
- Offers excellent corrosion resistance and adhesion
- · Hazard free non phosphate coating, hence effluent treatment is simplified and less needed
- Technology is based on environment friendly Cr 3+
- No flash rusting after long line stoppage, reducing need for rework
- · Does not contain Hydroxyl Amines or Sulphates, which requires complex effluent treatment
- No demand for COD and BOD
- A simple single component system, therefore easy to handle and user friendly
- Works at low temperature in the range of 25-35C, therefore saving on energy cost
- · Meets the current legislation and regulations, such as RoHS, WEEE, ELV
- Minimal generation of sludge (approx. 1/10<sup>th</sup> of standard zinc phosphating)-less load on disposal
- Can be an in situ fill up for Iron Phosphate with passivation or Zinc Phosphate System, with tanks to spare because of lesser number of process stages involved
- $\cdot$  Will call for an efficient Deionised water rinse before ECT Eco Coat 555 process and final rinse with conductivity < 50  $\mu$ s for optimum results
- Recommended Process Sequence:
- 1. Alkaline Degreasing
- 2. Water Rinse
- 3. Deionised Water Rinse
- 4. ECT EcoCoat 555 Process
- 5. Deionised Water Rinse
- · Suitable for powder coating and liquid painting lines, as a better pre-treatment process
- NSS Test results are comparable with Zinc Poshphating and Iron Phosphating with passivation
- Process chemical cost is mainly due to drag out.
- . If the advantages referred above are considered, ECT EcoCoat 555 process is much more economical compared to Iron Phosphating with passivation, Zinc Phosphating process and to the conventional Chromating processes.

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