E-Coat Process Stages

STAGE # 1 IMMERSION CLEANER
Chemcleen G11L Alkaline Cleaner. Operating temperature of 140°-160°. This stage removes light surface oxides as well as any remaining lubricants.

STAGE # 2 SPRAY CLEANER
Chemcleen G11L Alkaline Cleaner. Operating temperature of 140°-160°. This stage applies cleaner with oscillating spray nozzles to remove light surface oxides as well as any remaining lubricants.

STAGE # 3 CITY WATER RINSE
Ambient operating temperature. This stage removes soils loosened by cleaner as well as removing cleaner residue.

STAGE # 4 RINSE CONDITIONER
Rinse Conditioner GL. Ambient operating temperature. This stage prepares the cast/metal surface to accept the Zinc Phosphate coating.

STAGE # 5 ZINC PHOSPHATE
Chemfos 700 R.W. Operating temperature of 125° (plus or minus 3°). This stage applies a Trimetal Zinc Phosphate coating as a corrosion protective base for the paint coating.

STAGE # 6 CITY WATER RINSE
Ambient operating temperature. This stage removes the Zinc Phosphate salts and stops Zinc Phosphate reaction.

STAGE # 7 IMMERSION NON-CHROME SEAL RINSE
Chemseal 59. Ambient operating temperature. This stage supplements the Zinc Phosphate coating to enhance the corrosion protection.

STAGE # 8 R.O. RINSE
R.O. (Reverse Osmosis) Water. Ambient operating temperature. This stage is a purifying rinse to remove excess phosphate and sealer. It lowers the surface conductivity of the part to prepare it for e-coating.

STAGE # 9 R.O. RINSE
R.O. (Reverse Osmosis) Water. Ambient operating temperature. This stage is a purifying rinse to remove excess phosphate and sealer. It lowers the surface conductivity of the part to prepare it for e-coating.

STAGE # 10 ELECTROCOAT BATH
Operating temperature of 95° (plus or minus 3°). This stage applies positive charged paint to a negative charged part. This gives the part an electro deposition paint coating.

STAGE # 11 PERMEATE RINSE
R.O. Water. Ambient operating temperature. This stage removes excess e-coat from the parts. It counter flows paint solids back to the e-coat tank to enable a high efficient operation.

STAGE # 12 PERMEATE SPRAY
R.O. Water. Ambient operating temperature. This stage applies a permeate spray to assist in the removal of excess e-coat. It counter flows paint solids back to the e-coat tank to enable a high efficient operation.

STAGE # 13 PERMEATE RINSE
R.O. Water. Ambient operating temperature. This stage removes excess e-coat from the parts. It counter-flows paint solids back to the e-coat tank to enable a high efficient operation.