



# Standard Plating Process for Ixef® PARA

## Plating Method

The method used is the standard humid process, also referred to as PC/ABS plating or Pd-Sn process. The PC/ABS plating line consists in a succession of functional baths.

## Plating Process

Plating by humid way process can be divided into four major steps:

### Surface Cleaning

Removal of all substances having a bad influence on the plating process such as mold grease, releasing agents or dust

### Surface Preparation

Etching by acid is a surface pre-treatment that allows the further adhesion of an intermediate layer (electrically conductive)

### Activation

Producing an electrically conductive surface by hooking catalytic sites to the prepared surface

### Metallization in Two Consecutive Phases

1. Metal deposit on the electrically conductive polymer surface, the metal deposit is obtained by an auto-catalytic process – an electroless bath
2. Metal deposit with an electrolytic process using current – an electrolytic bath



## Ixef® PARA Specifications

The results of plating Ixef® polyarylamide (PARA) must take into account the material specificities:

### Polyamide Family Semi-Crystalline Structure

- Amorphous and crystalline areas

### Composite Material

- Resin+glass fibers/mineral fillers
- Ixef® PARA particularities: top pure resin layer

Those specificities can affect the metal surface (adhesion, orange peel, pitting, etc.) when non-appropriate process parameters are used.

## Ixef® PARA and Satin/Matt Chrome Plating

Ixef® PARA 1022 plated with Pd-Sn process:

### Surface Cleaning

- ISO-propanol

### Surface Preparation

- Chromic acid

### Activation

- Seeding with Pd-Sn colloidal solution

### Metallization

- Electroless metal deposit: Cu/Ni
- Electrolytic metal deposit: Cu/Ni/Cr

[www.solvay.com](http://www.solvay.com)

[SpecialtyPolymers.EMEA@solvay.com](mailto:SpecialtyPolymers.EMEA@solvay.com) | Europe, Middle East and Africa

[SpecialtyPolymers.Americas@solvay.com](mailto:SpecialtyPolymers.Americas@solvay.com) | Americas

[SpecialtyPolymers.Asia@solvay.com](mailto:SpecialtyPolymers.Asia@solvay.com) | Asia Pacific

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