

# **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**

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





# Ixef® PARA Specifications

The results of plating Ixef<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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

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