



Cycletime Tips - Automotive

Volume 2: Pre-Drying ABS Platable Parts before the Plating Process

Producing platable plastic parts for the automotive industry can often be a challenge. Care must be taken to ensure the entire process is completely optimized so that the final product is free of any defects.

In past Tech Tips, Bill Fierens and I have addressed issues on how to handle the material, the part, and the process. This tip will suggest another possible solution to the age-old problem of pinpoint blisters under the plate. This problem can raise scrap rates, which results in scrapping the entire finished part.

Because molded parts are composed of the same physical ABS material, as were the molded pellets, they may also absorb atmospheric moisture after molding. This condition may be more prevalent in the summer months. Such moisture may emerge during the plating, thermal cycling, or severe adverse environments, causing pinpoint blisters under the plate. Therefore, it is advisable to pre-dry the molded parts just prior to electroless plating. An incidental bonus to such part drying is the annealing so accomplished.

Part drying is best accomplished by passing the parts through a hot-air drying tunnel at 170°F for one to two hours. The need for part drying becomes greatest during periods of high humidity and long storage duration between molding and the plating process.