Pinholing due to outgassing

Hydrogen gas generated during electrodeposition discharges electricity.

Electrical energy (sparks) of the discharge causes the paint film to partially harden, which leaves pinholes after baking.

Q:

- **High coating voltage**
- **Low bath temperature**

A:

- Under the conditions shown at left, hot-dip galvanized sheet steel is most likely to form pinholes due to outgassing, so be careful.
- To counter this problem, the most effective way is to increase the solvent quantity for improved paint film fluidity during baking and, at the same time, to reduce the coating voltage.
- Emergency measures: Raise the bath temperature and reduce the voltage.