ABSTRACT: In-mold decoration (IMD) plays an important role in manufacturing technology for 3C (Computer, Communication and Consumer Electronics) plastic products. The ink washout of in-mold decoration is an inherent problem in recent years. The Taguchi method with orthogonal arrays was used to determine important factors affecting ink washout in IMD molding. It was found that the optimal processing parameter setting as follows: melt temperature (230°C), mold temperature (20°C), injection speed (40%) and injection pressure (60%); moreover, the mold temperature has the greatest influence on ink washout problem.

Keywords: In-mold decoration, Taguchi method, ink washout and mold design