

## Abstract Details

**Title:** Effect of moulding sand layers on statistically controlled investment casting solution for plain carbon steel

**Authors:** Rupinder Singh, Ranvijay Kumar, Sandeep Grover and TilakRaj

**Abstract :** The purpose of the present investigations is to study the effect of moulding sand layers on statistically controlled investment casting solution (ICS) for plain carbon steel. Starting from the identification of component; investment castings (IC) were produced with different grades of silica slurry layers (coarse, medium and fine) over the patterns (in the form of a tree). The study highlights that for present case study 3(fine)-1(medium)-1(coarse) moulding sand layers combination is statistically controlled ICS and hence can be use for mass production. Further the cast components have been analysed based upon mechanical and metallurgical properties.

**Keywords:** Moulding sand, statistically controlled, dimensional accuracy, plain carbon steel, investment casting.