

# As Deposited Microstructure of Spray Formed Al-6Si-10Pb Alloys

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**Abstract**—*In the present work, the microstructural studies of Al-6Si-10Pb alloy were conducted from top to bottom and from centre to periphery of the spray formed preform. Optical micrographs and SEM were taken at three different locations of the preform viz. (a) top (b) bottom and (c) peripheral regions. The size of the aluminum grains was lower at the peripheral region as compared to that of the top and bottom regions. Two different types of Particles/droplets were found to deposit on the substrate. First type particles were aluminum rich and the second type were lead rich. Aluminum rich particles were coarser than that of lead rich. The size of lead particles was higher at the centre as compared to that of periphery of the deposit. Some silicon particles were observed to be surrounded by lead at the grain boundary of aluminum phase.*

**Keywords:** Al-Si alloys, microstructure, spray forming.