**Creep behaviour of Al-Si-Mg alloy by hot impression creep test**

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**ABSTRACT**

Al-Si-Mg alloy samples of 10.5 mm height and 15 mm diameter were subjected to hot impression test which was carried out at constant temperature 150ºC and at constant dwell time of 3 hrs. Load was varied from 3 to 12 kilograms. Optical microscope and SEM was used to observe the microstructure. XRD was carried out for phase identification of the material. The effect of load on microstructure development, after the hot impression creep was studied. Indentation depth with respect to indentation time was plotted to obtain the creep rate. It was observed that the depth of indentation increased on increasing the load. The creep rate remained constant in the secondary creep region. The SEM images in the deformed region showed the shear band morphology for all the loading conditions.

*Keywords: Impression Creep; creep rate; Indentation depth.*