

EFFECT OF HIGH TEMPERATURES ON TENSILE DEFORMATION BEHAVIOUR OF CAST AL 7178 ALLOY

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ABSTRACT

The current study carries to investigate the high-temperature tensile deformation behavior of Al 7178 alloy. Cast metal matrix samples were produced through the stir casting technique with Al 7178 alloy is reinforced with SiC and Al₂O₃. The cast samples were tested under a uniaxial tensile machine at temperature ranges 400oC and 500oC. In high-temperature results, the Al 7178 alloy shows a decrease in strength with increasing temperature. In this investigation tensile strength, yield strength, and elongation were studied while tensile true stress and true strain curves were generated using Instom tensile machine.

KEYWORDS: *AL 7178 Alloy, Tensile Deformation*