

# SEMISOLID CONTINUOUS CASTING AND THIXOFORMING OF WROUGHT ALUMINUM ALLOYS

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*Abstract: In order to produce AA6070 and 7075 aluminum alloy billets for thixoforming, a new semisolid continuous casting was introduced. An inclined cooling plate was used to generate numerous crystal seeds of  $\alpha$  aluminum. Seeds grew granularly in the tundish and the semisolid slurry with a high solid fraction was continuously cast to make a billet. The continuous casting machine produced 60 mm-diameter, 1000mm- long billets at a speed of 3 mm/s. Thixoforming test was also performed to evaluate semisolid continuous casting billets.*

*Keywords: semisolid casting, continuous casting, wrought aluminum alloy, solidification, thixoforming.*