

## Squeeze casting results of aluminium alloys

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**The paper deals with a squeeze casting process. This process added a new knowledge in to research in the branch by crystallization of aluminium alloys. Due to this purpose there was designed a special tool, which was placed on hydraulic press. The squeeze casting was carried out on an aluminium alloy (AlSi12, with 12 % silicon). The main aim was study of the aluminium alloy structure, which was established at a pressure of crystallizing melt. In this way of the material crystallization was produced a truncated cone part with the larger the base (Ø 100 mm x 105 mm). The structure of specimens was monitored on a light microscope and was evaluated by means of software NIS Elements. The main results of the pressure melt to fine crystalline structure, which is represented fine dendrites both on surface and in an interior parts of the processed material. The influence of this pressure on the mechanical properties was monitored too.**

**Keywords:** alloy AlSi12, pressure, crystallization, structure

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