

Heat exchangers in automotive industry are often manufactured from aluminum-based alloy AW 3003. In recent time, the aim to reduce the weight of the cars leads to thickening of the foils, which are used for manufacturing of the heat exchangers. In order to fulfill all requirements on mechanical properties of the exchanger, new materials and thermo-mechanical treatments have to be found. Modified alloy AW 3003 with addition of zirconium seems to be perspective. Zirconium forms metastable precipitates  $Al_3Zr$ , which pin moving grain boundaries and shift recrystallization to higher temperatures. The most effective heat treatment, which leads to precipitation of these particles, seems to be a two-step annealing at temperatures 250 °C and 450 °C with slow heating rate. The precipitates formed were of diameter 10 nm.