

Change in Magnetic Properties of Low Carbon Steel after Heat Treatment

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Abstract. The influence of heat treatment on selected magnetic parameters of low carbon steel 12 014 and their development in the time of 70 hours after annealing and rapid cooling is studied in this work. A gradual shape change of the magnetization characteristic was identified manifested by a relaxation-type change in remanent induction and power losses. The origin of these changes can be attributed to the gradual concentration of precipitations leading to gradual increase in hardness, as well as forming of pinning centers for moving domain walls.