



EVALUATION OF NUMERICAL CHARACTERISTICS OF TRUE INTERLAMELLAR SPACING IN PERLITE AFTER COLD WIRE DRAWING OF EUTECTOID STEEL

HALFAROVÁ Petra, FABÍK Richard, VÁŇOVÁ Petra

VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU

Abstract

Alloys that have lamellar structures, e.g., pearlitic steel, are widely used in practice. Nowadays, perlitic steel wires for tire cords, springs and ropes are studied considerably at our laboratory of wire drawing. In the metallographic analysis of pearlie the interlamellar spacings are not the true spacings because the lamellae usually are not oriented perpendicular to the observation planes. Measured interlamellar spacing is called apparent. Evaluation of true interlamellar spacing from microstructural observations is based on the assumption of a uniform distribution of the probability of angle between lamellae and observation planes. However, lamellas change their orientation during cold wire drawing, therefore assumption mentioned above no longer applies. This paper deal with evaluation of numerical characteristics of true interlamellar spacing in drawn pearlitic steel wire. We analyzed the wires from C78D steel for ropes with varying degrees of deformation.

Keywords: Lamellar structures, measured interlamellar spacing

Author did not supply full text of the paper/poster.