

ASSESSMENT OF THE SUITABILITY OF APPLYING AlCrN COATING TO A CHOPPING KNIFE

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Abstract:

The aim of the paper was based on test of resistance to abrasive wear according standard GOST 23.208-79 and measurement of hardness by the HRC method, to assess the suitability of the application of the selected coating on the chopping knife for production wood chips. Samples from two knives made of tool steel X48CrMoV8-1-1 were in experiment analysed. One sample was uncoated and the other was coated with a coating AlCrN CROSAL+. Values of resistance to abrasive wear Ψ_{abr} and hardness coefficient KT were calculated. Based on the results, a coated chopping knife for producing wood chips was recommended. The application of the results can have an economic and qualitative benefit in the initial processing of wood for companies working in this sector.

Keywords:

Wear; Wood Chopping; Tool Steel; Coating; CROSAL+

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