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# Improving quality of new fillers for arc welding

## *Îmbunătățirea calității noilor materiale de adaos pentru sudarea cu arcul electric*

**N. Bajić [1*], M. Rakin [2], M. Mrdak [3], D. Veljic [1], Z. Karastojković [4]**

[1)] Research & Development Center, IHIS Techno experts d.o.o., Belgrade, Serbia
[2)] Faculty of Technology and Metallurgy, University of Belgrade, Serbia
[3)] Research and Development Center, IMTEL Communications a.d., Belgrade, Serbia
[4)] Advanced Technical School for Vocational Studies, Belgrade

*E-mail: ihis@eunet.rs*

**Abstract**

This paper provides an overview and an analysis of the results achieved in the development and production of new fillers with enhanced additional features of the shape of flux-cored wires and special electrodes intended for arc welding.

Particular attention is paid to the development of new flux-cored wires for MAG/MIG and submerged arc welding, which have a changed cross-sectional shape and an increased thickness of the metal sheath in relation to standard quality.

For mastering production of new cored wires an experimental technological line for calibration of narrow steel strip and formation of flux-cored wires was set up. The produced new quality of flux-cored wires in the course of experimental welding showed satisfactory operational welding features and required quality of the welded joint.

The development of new quality coated electrodes for welding, with improved properties, is linked to the development of flux-cored wires whose mechanical properties allow the possibility of making the core.

Mastering production of a special coated electrode with a core of flux-cored wire was performed on an experimental line for coating. The test results of welded joints indicate the feasibility of continuing research on the development of new metallurgical quality of special coated electrodes.

**Keywords**

Flux-cored wire, special coated electrode, electric arc welding