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SEMINAR «WELDING MATERIALS»

On January 24, 2017 the seminar «Welding Materials», devoted to the 90th birthday anniversary of academician Pokhodnya Igor Konstantinovich (1927–2015), was held at the E.O. Paton Electric Welding Institute (PWI) in Kiev. The scientists and specialists of the PWI, a number of enterprises-manufacturers of welding consumables (LLC «Sumy-Elektrod», PJSC «PlazmaTek», LLC «VitaPolis», LLC «VELMA», «TM.VELTEK», Pilot Plant of Welding Materials of the E.O. Paton Electric Welding Institute), teachers of NTUU «I. Sikorsky Kiev Polytechnic Institute», directors of some Institutes of Department of Physical-Technical Problems of Materials Science of the NAS of Ukraine. Above 80 participants took part in the Seminar.

Academician *L.M. Lobanov*, the Deputy Director of the E.O. Paton Electric Welding Institute, made an opening address to the participants. He described a great contribution of I.K. Pokhodnya, a well-known scientist and a prominent organizer of science, to the development of fundamentals of metallurgy and technology of metals, materials science and electric welding. His name is associated with fundamental studies of physical-chemical processes of arc welding, new high-efficient processes of manufacture of materials, establishment of a scientific school in the field of metallurgy and technology of arc welding, development of science-intensive technologies and advanced welding materials, organizing of their production. He prepared above 50 Doctors and Candidates of Technical Sciences, above 900 papers, and published tens of monographs. I.K. Pokhodnya was a Vice-President, Chief

Scientific Secretary of the NAS of Ukraine and then headed the Department of Physical-Chemical Problems of Materials Science in the Academy for 27 years.

His pupil, *V.V. Golovko*, the Chief of Department of the PWI, told about creative developments of I.K. Pokhodnya. He and the next speakers *I.R. Yavdoshchin* and *A.S. Kotelchuk* told about the creative atmosphere of the PWI Department, established and headed by I.K. Pokhodnya, promoting the development of low-toxic welding materials and technology of their industrial production, creation of powerful specialized shops on manufacture of coated electrodes, reconstruction of a number of existing electrode enterprises. Due to joint efforts of scientists-welders and metallurgists, designers and manufacturers it was managed to solve an important national economic problem: to provide the manufacture of national high-efficient low-toxic electrodes on a short time. Investigations, carried out under the supervision of I.K. Pokhodnya, gave an opportunity to develop a number of different-purpose flux-cored wires and to offer unique designs of their sheath. This became a significant progress in technique and technology of the mechanized welding in site and under the field conditions.

Paper of *S.V. Pustovojt* (PWI) was devoted to the topic «State-of-the art and tendencies of development of market of welding materials». The important conclusion of this information is the fact that it was managed by the efforts of scientists of Ukraine and specialists of enterprises-manufacturers of welding materials to prevent greatly the expansion of foreign



Presentation of Yu.N. Omelchuk, the commercial director of corporation «PlazmaTek»



Near the stand of the Pilot Plant of Welding materials (Prof. I.V. Krivtsun, Deputy Director of the PWI, Dr. V.N. Shlepakov and P.A. Kosenko, director of this plant)

suppliers of electrodes and flux-cored wires to the market of Ukraine. Moreover, in the recent years the tendency of increasing the export of welding materials from Ukraine is observed.

N.A. Protsenko (PWI) told about algorithm and required activities of companies of Ukraine concerning the documentation and support of system of plant industrial control to assure the conformity of products, manufactured for the market, to International and European standards, regulating the working characteristics of materials. At present four Ukrainian manufacturers of welding materials received the right of marking their products by sign CE: LLC «VitaPolis», Boyarka town, Kiev region; LLC «Metiz», Brovary town, Kiev region, corporation «PlazmaTek», Vinnitsa city, LLC «Sumy-Elektrod», Sumy city.

Yu.N. Omelchuk, the representative of the corporation «PlazmaTek», dwelled on organizing the production distribution in his speech. Today, the corporation occupies the first place at the post-Soviet territory by volumes of manufacturing and selling of electrodes. In 2016 its volume of production reached 30 thous. tons. The main products (80 %) are electrodes on base of ANO-36 grade with high welding-technological properties.

They successfully compete with electrodes of corporation ESAB (Sweden) and Turkish manufacturers. Corporation «PlazmaTek» established logistic centers in Russia (2), Belarus (2) and Kazakhstan (1). It is planning to organize these centers in Romania, Moldova, Poland and Uzbekistan. The corporation is planning the increase in volume of production of copper-plated welding wire, mastering the production of stainless welding wires.

V.N. Lipodaev (PWI) told about the information support of specialists, working in the field of development, mastering of production and consuming of welding materials. In this aspect the leading role of the



Near the stand of LLC «Sumy-Elektrod» (Prof. L.M. Lobanov, Deputy Director of the PWI and P.N. Pogrebnoj, director of this plant)

journal «Avtomaticheskaya Svarka» was noted. For the seminar the January issue of journal, devoted to the topic «Welding materials» was published and distributed among the participants. Many times the journal was issued as Proceedings of International Conferences, held at the E.O. Paton Electric Welding Institute. The activity of association «Elektrod» is also efficient in a regular organizing of conferences on welding consumables and publishing of appropriate Proceedings.

At the seminar the pupils of I.K. Pokhodnya, becoming the heads of enterprises made a speech: *A.A. Golyakevich*, Director, LLC «TM.VELTEK», *M.F. Gnatenko*, Director, LLC «VELMA». They expressed sincere thanks to I.K. Pokhodnya for help in their formation as specialists, capable to apply effectively the experience acquired at the PWI.

Directors of Institutes of the NAS of Ukraine also shared their memories. They noted a valuable contribution of I.K. Pokhodnya to scientific-organizational activity of Department of Physical-Technical Problems of Materials Science, demonstrating the effective activity in the system of the NAS of Ukraine. The seminar was continued by inviting the participants to the blitz exhibition of manufacturers of welding materials, organized at the demonstration hall of the PWI. Stands of corporation «PlazmaTek», LLC «Sumy-Elektrod», LLC «TM.VELTEK», SE «Pilot Plant of Welding Materials of PWI», LLC «VitaPolis», LLC «SteelWork» were presented, attracting a keen interest of the specialists.

At the business lunch, organized in conclusion, the seminar participants could discuss the different aspects of such not simple production as manufacturing welding materials in informal atmosphere and recollect once again the beloved expression of Igor Pokhodnya: **«I see, young men, that You relaxed....»** as an address and appeal to the effective work.

V.N. Lipodaev, A.T. Zelnichenko, PWI

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