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## ESTABLISHING BORYS PATON STATE AWARD

On April 15, the Verkhovna Rada of Ukraine adopted Law 5327 «On Amendments to Article 11 of the Law of Ukraine «On State Awards of Ukraine», which establishes the Borys Paton State Award.

Implementation of this Act will have a positive impact on the sphere of scientific and scientific-engineering activity as a whole, as it is aimed at preservation of the memory of Academician B.E. Paton, outstanding Ukrainian scientist and organizer of science, who was characterized by dedication to his calling and tireless creative search that will inspire scientific achievements of the next generations of scientists.

Academician Borys Paton was a state and public figure, President of the National Academy of Sciences of Ukraine from 1962 till 2020, Director of the E.O. Paton Electric Welding Institute of the National Academy of Sciences of Ukraine, Hero of Ukraine. He died on August 19, 2020, at the age of 101.

The sum of the State Award is determined every year by an Act of the President of Ukraine according to the established procedure.

The Law was developed by the Ministry of Education and Science at the initiative of the President of Ukraine

on preservation of the memory of Borys Paton, Hero of Ukraine, outstanding Ukrainian scientist and science organizer.



## A NEW ELECTRODE MANUFACTURING PLANT — «MONOLIT ASIA» WAS COMMISSIONED IN UZBEKISTAN



In July, 2020 PJSC «PlasmaTek» Company (Vinnitsa, Ukraine) under the project for expanding its presence in Central Asia countries, commissioned «Monolit Asia» Plant for electrode manufacturing in Tashkent, Uzbekistan.

The capacity of the plant production facilities is 1.5 thou t of electrodes with rutile and basic coating. After the equipment has reached the design parameters, the total capacity of the Group of Companies with plants in Ukraine, Belarus and Uzbekistan will be increased up to 7 thou t electrodes per month.

## ELECTRON BEAM MELTING OF LARGE-SIZED TITANIUM INGOTS

SE «Scientific-Production Center «Titan» of PWI optimized the technology of electron beam melting of large-sized ingots (1080 mm dia, more than 10 t weight) of titanium alloys with specified oxygen content, not containing any high or low density inclusions. This technology allows using titanium scrap and low grade titanium sponge as raw materials. The ingots are produced with glazed or machined surface.

*SPC «Titan» today:*

- main scientific activity — development of titanium-based alloys, technologies and equipment for their production by electron beam melting (EBM);
- main production activity is making titanium alloy ingots and manufacturing equipment for EBM;
- production facilities: six electron units;
- certificate for quality system ISO 9001;

- international deliveries to: Great Britain, China, Germany, USA, France, Sweden, Japan.



## PATON INTERNATIONAL — ONE OF THE LARGEST MANUFACTURERS OF WELDING ELECTRODES IN UKRAINE

PATON INTERNATIONAL Company is the leading manufacturer of welding equipment and consumables in the territory of Ukraine and CIS countries, which are applied with success practically in all sectors of the economy: from housing and communal sector to heavy mechanical engineering and ship-building. The range of PATON™ products includes more than 35 items of welding equipment, as well as more than 10 electrode grades for manual arc welding, which the Company started manufacturing in 2016.

In December, 2019, a new section for welding electrode manufacture was commissioned in the main production site of PATON INTERNATIONAL in Kyiv at 66 Novopyrogivska Str. This section now includes the following areas: charge material preparation and dosing; rod cutting up, electrode moulding, heat treatment, sorting and packing of finished products. Alongside the production areas, the new complex for welding electrode manufacturing also includes laboratory facilities to ensure monitoring of the production process at all the stages: from receiving the raw materials up to acceptance tests of each batch of finished products.

At present the plant has launched production of the most common grades of PATON™ electrodes, which are well-established in the market and are manufactured by the classical coating formulation (ANO-36, ANO-4, UONI-13/55, MR-3); and Elite series electrodes, which are made by an improved coating formulation (Elite ANO-36, Elite ANO-21, 7018 Elite), as well as special purpose electrodes (TsL-11, TsCh-4, T-590).

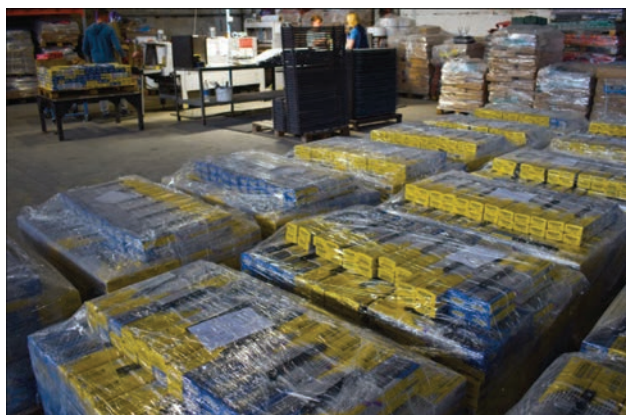
Two production lines were put into operation in the section, and in the near future it is planned to finish commissioning works in an absolutely new third line, thus increasing the overall production capacity to 1000 t per month. Production is carried out round the clock by several teams with overall number of 50 people.

When a new production site was set up, the main objective was to ensure the highest product quality. In order to reach this objective, the list of raw material component suppliers was revised, and control of raw material quality was enhanced. Only the best Ukrainian suppliers were selected, and direct supplies of high-quality materials from Germany, Slovakia, the Netherlands, India and other countries were organized. Professional training of personnel was conducted with production skill certification for performance of the main manufacturing technology operations. Monitoring raw materials and testing finished products are performed by company laboratory complex, using high-technology equipment: X-ray fluorescence analyzer, carbon and sulphur analyzers, and specialized vibrostand.

The above-mentioned laboratory equipment, together with novel procedures for monitoring the technological production process ensure the high quality and stability of performance of PATON™ welding electrodes, which correspond to all the necessary requirements to this kind of products that is confirmed by certificates from leading Ukrainian and International certification bodies.

Company products are supplied to more than 50 countries all over the world, and welding electrodes take up one of the key positions in the supply structure. Overall scope of export supplies of the electrodes was equal to more than 4000 t just in 2020.

The near-term plans of PATON INTERNATIONAL envisage widening the electrode range and increasing the output volumes by entering new markets. It will allow the Company rising to leading positions in this market segment in the near future, and consolidating its status of a prominent Ukrainian manufacturer of both welding equipment and welding consumables.





## *Dear colleagues,*

*It is with great pleasure that I welcome all the participants and guests of the International Conference and Exhibition devoted to state-of-the-art technologies of material joining.*

*Welding, as before, remains the leading technology in many industries. That is why the range of issues to be discussed at the Conference, information about the results and achievements in the field of welding production, as well as familiarization with samples of welding consumables and equipment presented at the Exhibition, will promote strengthening of the scientific and business contacts, and further development of research and applied work.*

*The traditional fruitful cooperation of science and industry, continuous scientific support, provided by the E.O. Paton Electric Welding Institute of the NAS of Ukraine and active position of manufacturers of welding consumables and equipment allow ensuring their high quality, and satisfying wide demand both in the domestic and foreign markets. As an example, it should be noted that Ukrainian specialists helped establishing a number of welding consumable productions in many countries in the post-Soviet space.*

*Of great interest, in my opinion, are the presentations devoted to plasma-arc and hybrid processes of welding, cutting, material processing and coating deposition; 3D-printing technologies; robotic welding in welded structure fabrication; brazing and surfacing; monitoring flash-butt welding of rails, modern market of welding consumables, etc.*

*On behalf of the Conference Program Committee, I would like to express my sincere gratitude to all the organizations, enterprises, companies and individual specialists, whose active support made it possible to hold the Conference.*

*I believe that consideration of the issues to be addressed by the Conference, exchange of information on the achievements, establishing wider scientific and business contacts will promote development of new priority directions of research in the field of welding and related technologies, and will allow us making our contribution to revival and rise of industrial production in our country.*

*Wishing successful work, great achievements, well-being and good health to all the Conference participants*

*Director of the E.O. Paton Electric  
Welding Institute  
Academician I.V. Krivtsun*