



UNIQUE PVC PROFILE FROM POLYPLASTIC

Russia's first-ever production line launched for steel-reinforced PVC profile.

POLYPLASTIC Group has launched Russia's first-ever production line for reinforced-steel polyvinyl chloride (PVC) profile at the Novomoskovsk Plastic Pipes Plant (NZPT). The Group is the largest CIS manufacturer of plastic piping systems, one of SIBUR's key partners in the procurement of products for own production facilities and a participant in joint research programmes delivered through NIOST. The unique product is in demand in the construction and repair of utility infrastructure.

SPIRATECH, a specialist reinforced profile made of non-plasticised PVC, is intended primarily for the installation and renovation of pipelines. Previously, such products were only produced abroad and had to be imported due to the high complexity of setting up production. The Russian steel-reinforced PVC profile production technology has been developed by specialists at POLYPLASTIC Group. The design gives the spiral-wound pipe high strength and wear resistance, and its service life is more than 50 years. There is no domestic equivalent to such a product yet.

AT THE MOMENT, POLYPLASTIC GROUP'S CAPACITY IS MORE THAN 860,000 LINEAR METRES PER YEAR. THE SECOND PRODUCTION LINE FOR SPIRATECH PROFILE, WHICH IS EXPECTED TO COME ONLINE IN 2022, WILL BRING TOTAL PRODUCTION CAPACITY TO OVER 1,800,000 LINEAR METRES PER YEAR, ALLOWING THE COMPANY TO COVER MARKET DEMAND FOR THE MATERIAL

"SPIRATECH is not simply a material taking the form of a PVC profile with steel reinforcement inside, but an end-to-end solution for trenchless renovation of non-pressure pipelines. The product's distinctive feature is that a profile strip can easily be fed through a manhole. Therefore, no digging of access pits is needed," explained Maxim Motovilov, head of the project support department at the Strategic Development Department of POLYPLASTIC Group. "The profile is chemically resistant to aggressive environments and will not corrode, enabling the production of pipelines with large diameters, up to 8,000 mm, and of any cross-sectional shape: circular, rectangular, arched or tear-drop. It can therefore be used in a wide variety of projects."

The introduction of the new polymer product opens up great prospects: the spiral-wound method means damaged or worn pipelines can be renovated without removing them or disrupting service, even without excavation. New pipes with high ring stiffness are formed directly inside the existing pipeline from a continuous profile locked with a special leak-tight connection. The spiral-wound technology

can also be used to construct inspection chambers, storm water drainage systems, industrial tanks, fittings, etc. Other advantages of this solution include its simplicity, mobility, high installation speed, low cost of logistics and storage, as well as only minimal crew needed.

The project took two years to develop, and POLYPLASTIC Group invested more than RUB 140 million in the new production facility. Since the launch of production, NZPT plant has already produced about 200,000 metres of the new, reinforced profile. Interest in the new product is high, and projects using the spiral-wound technology are being actively implemented across the country. In St Petersburg, for example, as part of the overhaul of a sewage collector tunnel along the Moika River embankment, an old pipeline is being renovated.

At the moment, POLYPLASTIC Group's capacity is more than 860,000 linear metres per year. The second production line for SPIRATECH profile, which is expected to come online in 2022, will bring total production capacity to over 1,800,000 linear metres per year, allowing the company to cover market demand for the material.