

OBLIGATORY TESTING REQUIREMENTS LEAD TO THE CREATION OF A SPECIAL TESTING FACILITY

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A unique thermostatic bath has been put into use at the POLYPLASTIC Group's Klimovsk Pipe Plant. It's used to test pipes up to 2200 mm and fittings up to 1600 mm in diameter.

The bath was developed to help meet State Standards regulating requirements for plastic pipes and fittings. State Standards require resistance tests at constant internal pressure for a duration of 100 hours at 20°C, and 165 and 1000 hours at 80°C. Testing is conducted every two years for each diameter in the range.

Considering the demand for big diameter PE pipes, POLYPLASTIC Group companies now produce pressure pipe up to 1600 mm including gas pipes up to 1200 mm, low pressure (up to 0.6 MPa) and CORSYS PLUS pipes with inner diameter of 2000 mm.

A range of complex technical issues have been addressed to create an appropriate testing facility for pipes and fittings of such size. These include:

- Maintaining the required water temperature (bath capacity is around 40 m³). It is supported by an automatic system with temperature gauges, a water heating and cooling unit, and circulation pumps.

- Creation of constant pressure. It is supported by an IPT station (Germany). A special water preparation unit was designed and installed to filter out mechanical impurities and reduce water hardness.

- Installation of testing samples. For example, the weight of the

1200 mm pipe sample built with caps and filled with water is 7.5 tonnes. A special assembly procedure was developed to provide safe and effective use.

- Maintenance of the bath.

The thermostatic bath for big diameter pipes and fitting samples testing was manufactured and commissioned in 2012. It meets all the nec-

essary requirements, and is now being used for a vast number of tests.

It is the only internal pressure testing unit in Russia, and one of the few in Europe on such a scale. It gives POLYPLASTIC Group the unique ability to verify the quality of all big diameter pipes and fittings through testing and compliance with appropriate regulations.

