

Experience and industry expertise convince Isover

Multinational Teamwork

Doing a big project in Russia with five companies in four different countries – still almost a routine job for Siemens, which took on the project management for a new glass wool plant for Isover under these conditions. A successful project for a similar plant in Poland, extensive experience in the Russian market, good relations with technology partners, and, last but not least, a cooperative customer all contributed to the successful completion of the project – which in turn prompted Isover to continue its partnership with Siemens.



All pictures: Isover

The TEL process

The raw material for glass wool is ordinary sand, which is mixed with melting agents and recycled glass and melted at 1450 degrees Celsius. The glass melt is fiberized on a spinner in the TEL machines. The fibers are treated with binding agents (to give cohesion and mechanical properties to the glass wool) and formed into a fiber mat. The special TELSTAR process used exclusively by Isover produces particularly long and soft fibers that have very good insulating properties.

The continuous fiber mat strand then passes through a curing oven, where it gets its final shape, strength, and stability. The finished fabric is then coated, cut, and packed either as batts, slabs, or rolls.

Isover: Experts in insulating materials

Isover is the primary global brand of the insulation division of the French glass manufacturer Saint-Gobain. With a market share of 30 percent in Europe and 20 percent in the United States, Isover is the world's leading name in insulating material for building.

Isover is represented in 35 countries worldwide and produces glass and mineral wool and thermal and acoustical ceilings at 37 sites. Isover also produces insulating foams that are developed in partnership with major chemical companies.

Last year, the company, which currently employs about 9,000 people, achieved sales of approximately 1.9 billion Euro.

Starting in 1996, Isover has been active in the Russian market for eight years and is the second largest supplier of insulating materials in Russia. Isover has benefited from the rapidly growing demand for insulating materials in Russia and neighboring states, and about two years ago the company decided to build its own production site in Russia. The new plant was to be built on an old industrial site in Yegorievsk, near Moscow. From the very start, the project was geared toward future growth. Initially only one line with a capacity of 20,000 tons of glass wool was to be built. However, the plant's premises are large enough to house further glass lines.

International project team under experienced management

The new plant was built by Isover Oy of Finland, in cooperation with Isover Russia. The plant uses state-of-the-art technology to ensure efficient and reliable production. An energy-saving melting process, sophisticated TEL machines, and efficient and reliable automation technology were planned and implemented by an international project team.

Siemens was responsible for project management in the areas of automation, process instrumentation, and valve technology, including the corresponding engineering and services. The fact that Siemens had already proven its industry and project expertise in other Isover plants, for example in Poland and Germany, was a decisive factor for Isover in placing this order.

The Siemens project management team worked in close cooperation with Russian engineering consultants Sinetic, who took over the responsibility for local installation of the systems. Siemens contracted its technology partner STG Cottbus GmbH to create the application software and supervise the commissioning and installation of the systems on site. An Austrian company supplied the valves, Siemens Germany provided the Simatic PCS 7 system and the entire field instrumentation, and Siemens Finland delivered the cabinets and operator panels for the process control technology.

"Coordinating such a multinational project is always an immense challenge," says Dirk Richter, Siemens project manager for the plant in Yegorievsk. "We had to coordinate all units that were in our responsibility along with the activities of the local Russian companies and our own subcontractors. In addition, the Russian market has a number of peculiarities that demand special expertise." Siemens has been extremely active in the Russian market for several years and therefore possesses the necessary licenses and permits – another advantage of working with Siemens, as Isover confirms.

Uniform automation technology

The Simatic PCS 7 process control system is used throughout the plant. The systems in the process are connected to the control system via Profibus DP – including Sitrans PS 2 positioners, which control the valves in the plant, among other things.

Uniform automation technology

The uniform system architecture offers Isover several advantages. The work involved in the commissioning and fine adjustment of the individual units is reduced considerably, and maintenance and servicing of the plant are also simplified. At the same time, Isover can be certain that both the process control system and the process instrumentation can be extended or modified at any time – an important aspect, especially in a plant that was geared toward growth from the very outset.

The whole project went off perfectly. The plant went into operation in October 2003 and was producing at full capacity within a very short time. This was due not least to Siemens' international project expertise. Together with Isover, Siemens always managed to make the right decision when difficulties arose or when modifications were necessary.

Project completed successfully

In June of this year, Isover decided to expand its activities in Russia even further. A second production line is presently under construction and has been designed from the start so that its capacity can easily be doubled. With this new line operating at maximum capacity, production in Yegorievsk will be more than tripled. For the new project, Isover again put its trust in Siemens' competence and appointed the proven team as project managers. ■

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