

CASE STUDY

GEOCELL Schaumglas GmbH
SCHAUMGLASSCHOTTER



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**MINERAL
SORTING**

CASE STUDY

GEOCELL Schaumglas GmbH - SCHAUMGLASSCHOTTER

CUSTOMER

GEOCELL Schaumglas GmbH is one of the leading producers of foam glass gravel in Europe. They have three production sites in Germany and one production facility in Austria. With the completion of a glass-mill at Gaspoltshofen furnace manufacturer of foam glass gravel is consolidating its market leader position and simultaneously processed waste glass from Austria.

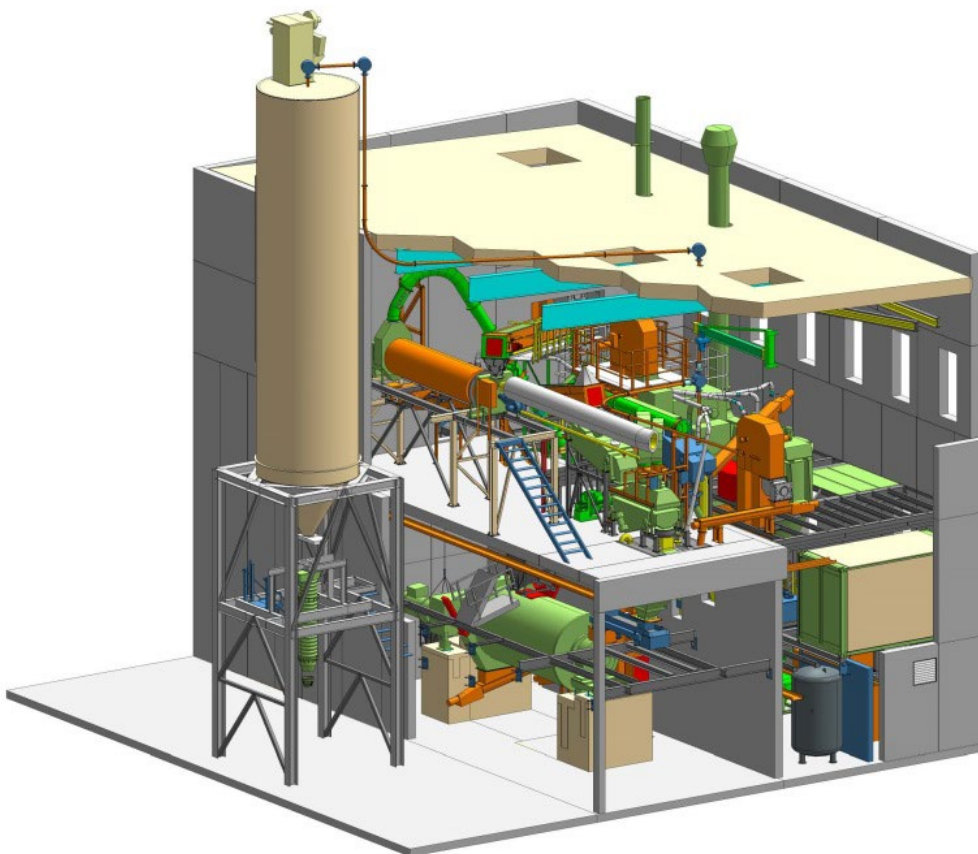


SITUATION

Before construction of the plant, the glass powder was purchased as raw material. In order to become independent of the market and suppliers, in 2012 GEOCELL decided to erect their own glass powder production plant. Thus, the supply of raw material should be secured.

SOLUTION

The planning, delivery and installation of the complete machine and electro engineering equipment for the glass powder plant from the company GEOCELL, one of the leading producers of foam glass ballast in Europe, was carried out by the company BT-Wolfgang Binder GmbH from Gleisdorf, as general contractor.



Picture: Plant: Geocell foam glass ballast in Gaspoltshofen (Austria)

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PROJECT/PLANT DESCRIPTION:

The glass powder plant, with a discharge rate of 6 tons of broken waste glass per hour, fundamentally consists of a material store, including raw material discharge, the drying and milling plant, as well as the screening and classifying plant.

The different quality waste glass delivered is stored intermediately in a covered material store and, using a wheel loader, conveyed into the discharge hopper. The raw material is then transported by conveyors and belt bucket conveyor into a drum dryer, in which the waste glass is dried to a residual moisture of less than 0.5 percent. The waste glass is then separated from metals and organic substances in the subsequent processing plant and screened.

The waste glass with a granularity of 0 to 60 mm is ground in a ball mill to a glass powder final granularity of less than 100 µm. The material is then directed into the distribution table air separator, in which the glass powder is separated exactly at 100 µm. The finished glass powder product is subsequently intermediately stored in a silo or fed to the foam glass kiln by a pneumatically operated conveyor system.

The complete system is dedusted by modern hose filter systems. Because of the strong stripping glass, the machine parts that contact the material are lined with a ceramic covering, which significantly improves the service life of the expendable parts. The complete plant is operated by a fully automatic, electronic control system, which has been supplied by BT-Anlagenbau. Visualization is provided on screens that are operated from the control room. The complete project, from the award of contract to transfer to the customer, was realized in a period of approximately 10 months.

ADDITIONAL INFORMATION:

GEOCELL foam glass ballast (foam glass granulate) is a highly thermal insulating, load dissipating bulk material made from 100 % waste glass. As load dissipating, thermal insulating lightweight aggregate below the foundation base, foam glass ballast combines numerous characteristics, the combination of which provides an excellent insulating material.