

PRESSEINFORMATION

On the "Walhalla Hall of Fame and Honour of the Germans" rest henceforth the mighty lime flagstones of Poraver.

Under the management of the local state building authority extensive repair work is ongoing on the Walhalla in Regensburg. Particular emphasis and attention were given to the static security measures of the long-range substructure of the temple and the step foundation because the Walhalla is situated on an extreme steep bluff that was built on a three step vault supported substructure, a so-called cyclopean building. The substructure covers an area of 5800 square metres and reaches a height of 32 metres.

A few years after the completion, the first signs of water damage occurred to the terraces. The hydrophilic limestone and inadequate drainage led to the soaking of the substructure.

For decades the renovation work did not address the fundamental issues of invading moisture. In 2002, the stairway was closed off as a precautionary measure, since structural safety could no longer be guaranteed. A retaining wall had tilted to the south by 14 centimeters and there was a risk that the heavy flagstones would loosen. Due to the decades-long moisture penetration the supporting walls of the cyclopean structure and the vaults were no longer statically reliable.

Preliminaries of the safety measures included a geological survey and an analysis of the entire supporting structure, to assess it statically. For that purpose, core drillings were performed and the drilling cores were then tested for their compressive strength.

The analyses and calculations showed that horizontal thrust forces from the surface soil and the superstructure pushed the supporting walls downwards, leading to the tilting of individual retaining walls in a southwards direction. The affected retaining walls and cross vaults had to be lined with bricks and protected against further water infiltration.

With stainless steel anchors, further tilting was prevented. Two thousand 40 centimetres deep (approximately) holes were drilled into the vault walls. To secure the moving ground and to build the front structure on an additional foundation the ground was consoli-



dated using cement bonded injections in the jet application process.

After successfully securing the stability, the up to two square metres big lime flagstone slabs needed to be newly fitted and underpinned. The new bearing had to fulfill the most diverse requirements such as pressure-resistance, moisture-resistance, easy handling and near zero tolerance grading. The "common denominator" was found by the engineers of the state building authority of Regensburg in the use of Poraver. After technical consultation on the detailed product characteristics, as well as logistics and material application the construction company Fa Siegfried Kahl GmbH from Schmiedgarden selected Poraver in grain sizes from 4 to 8 mm.

Overall, for the new bearing 150 m³ Poraver were gradually introduced over a span of two working days, the 30.06.08 and the 01.07.2008. The expanded glass granules were directly blown from the silo vehicles on to the site over a distance of 80 metres.

In the spring of 2005 the necessary restoration work began under the leadership of the state building authority of Regensburg. For the first remedial steps 7.75 million Euros have been authorized. So far, they were mainly spent for the static security of the stairs and the substructure. Necessary work in and around the temple are also to be paid from this investment.

History of the building

The prior history of the construction goes back to a time when Prussia had been deeply humiliated, after Napoleon defeated it in 1807. Twenty year old Crown Prince Ludwig of Bavaria began to plan a hall of fame honouring outstanding persons of German origin. For the inauguration of the Walhalla, the king found the following words to accompany his structure: "May the Walhalla encourage the strength and growth of the German awareness! May all Germans, from whatever tribe they may be, always feel that they have a common fatherland, and let each contribute as much as he can to its glorification!"

His idea was to create a sense of politic cultural union without the regard for national frontiers represented by outstanding personalities "of the German tongue", which the visitors face upon entering the Hall of Fame.

Photos, graphics and captions::



The substructure of cyclopean structure covers an area of 5 800 square metres that reaches a height of 32 metres.

File name: Walhalla2

Photo: Dennert Poraver GmbH



The hydrophilic limestone and inadequate drainage led to the soaking of the sub-structure. The affected retaining walls and cross vaults had to be lined with brick and protected against further water infiltration.

File name: Walhalla4

Photo: Dennert Poraver GmbH



After successfully securing the stability, the up to two square metres big lime flagstones had to be newly fitted. At the same time, the sensitive lime flagstones are restored piece by piece.

File name: Walhalla7

Photo: Dennert Poraver GmbH





The new bearing had to fulfill the most diverse requirements such as pressure-resistance, moisture-resistance, easy handling and accurately grading. The "common denominator" was found by the engineers of the state building authority of Regensburg in the use of Poraver. After technical consultation on the detailed product characteristics, as well as logistics and material application the construction company Fa Siegfried Kahl GmbH from Schmiedgarden selected Poraver in grain sizes from 4 to 8 mm.

File names: Walhalla5 and 6
Photo: Dennert Poraver GmbH



On two working days, the 30.06.08 and the 01.07.2008, a total of 150 m³ Poraver was gradually introduced. The expanded glass granulate was blown from the silo vehicles on to the site over a distance of 80 metres.

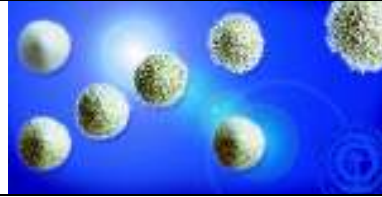
File name: Walhalla3
Photo: Dennert Poraver GmbH



Chronology of Walhalla:

1830, the foundation stone was laid for the construction of the Walhalla
1842, the completion and inauguration ceremony of the Walhalla
Since 2005 careful restoration of the Walhalla

File name: Walhalla8
Photo: Dennert Poraver GmbH



What makes the light weight aggregate Poraver so popular.

Poraver is the ecologically rewarded light weight aggregate from 100% recycled glass. It is produced in a special procedure. The round granulate is used in top quality free of broken granule particles in diameters of microscopic 0.04 to 16 mm.

The Poraver benefits include very low weight with high compressive strength, excellent heat insulation and sound absorption properties and Alkali resistance. In addition, Poraver is non-flammable, does not provide a breeding ground for bacteria and prevents Silicosis, thanks to its amorphous glass structure. These seamless quality features make Poraver the best light weight aggregate.

File name: Kugeln_neu_083

Photo: Dennert Poraver GmbH

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