

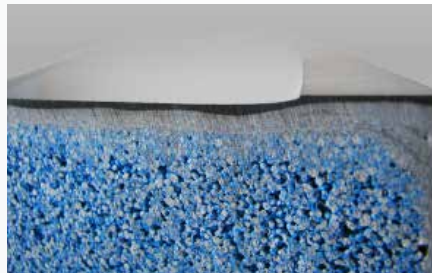
MODEL AND MOULD MAKING

with Poraver[®] expanded glass

APPLICATION

Poraver[®] expanded glass granulate is an ideal lightweight filler for model, mould production due to the easy and costeffective way of building moulds. Poraver[®] is therefore mixed with resin as binder, and used as material for back fills of negative forms. The structure of the forms is done as a classic sandwich structure, to give it sufficient rigidity.

The approach is similar to the build-up of polymer concrete, which uses resin filled with quartz sand. The two layers, preferably made from GRP laminates, should have a minimum thickness of 1 mm each to ensure good handling quality of the finished moulds.



GUIDE FORMULATION

The following formulation has proven effective:

Per liter of Poraver[®] grain size 1-2 mm, 50 g epoxy resin (resin-/ hardener mixture) is required.

An addition of 1-5 % foam agent increases the adhesion and the shear strength of the compound, as emerging cavities are completely filled out with the resin mixture.

The mixture can be colored in order to control the homogeneous mixing of the binder and Poraver[®].

Such formulations should be initially technically identified with the application before the actual production in order to test the appropriate design.



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PROPERTIES

GRAIN SIZE mm	BULK WEIGHT kg/m ³	PARTICLE DENSITY ¹⁾ kg/m ³
0.25 – 0.5	340 ±30	700 ±80
0.5 – 1	270 ±80	500 ±60
1 – 2	230 ±30	400 ±60
2 – 4	190 ±20	320 ±40

¹⁾ Apparent (relative) density according to EN 1097-6

- Moisture content < 0.5 %
- Thermal conductivity ca. 0.07 W/mK

Further technical information and grain sizes at: www.poraver.dcom

> BENEFITS AT A GLANCE

- lower weight compared to conventional construction methods
- cost savings
- reduction of shrinkage and warping
- excellent combination with epoxy and other resin
- easy handling and processing
- use of resource-friendly materials



For more information on application specific details about the mould construction with Poraver[®], please contact:

CONTACT

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