



*THE FUNCTIONAL
LIGHTWEIGHT AGGREGATE*

FROM POST-CONSUMER RECYCLED GLASS



PORAVER[®] EXPANDED GLASS

The lightweight aggregate from post-consumer recycled glass

The world is changing. Every day. Manufacturers striving to be the best in their industry tomorrow, need a powerful partner with a strong product today. Poraver[®], our unique lightweight aggregate made of recycled glass, was developed more than 30 years ago.

Consistently tailored to your products, Poraver[®] supports the decisive market advantage for customers all over the world – in ecological and economic terms. As a world market leader ourselves we wanted to strengthen our North American presence so a new plant was built near Toronto, Ontario in Canada.

Since Hans Veit Dennert acquired this plant at the beginning of 2011, North American operations are now repositioned technologically and strategically to strengthen our leading advantage. After extensive investment in research, development and production facilities, only one goal remains: to become our customers' best partner – for quality, technology and innovation. For us, customer service is paramount.

Welcome to Poraver[®]!



*Matthias Gebhardt
Master of Business Administration
Co-Shareholder, Co-CEO
Finance & Administration*



*Andreas Stefan Krafft
Master of Engineering
Co-Shareholder, Co-CEO
Production, Engineering, R&D*



*David Veit Krafft
Bachelor of Arts (Business Economist)
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Sales & Marketing*

Plant in Postbauer-Heng, Germany



CONTENT

The functional lightweight aggregate



Plant in Innisfil, Ontario, Canada

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OPTIMISING PRODUCTS

with Poraver[®]

Numerous companies from a wide range of industries rely on the advantageous properties of Poraver[®] for adding value to their top-quality products. We are the people to ask if you are looking for a solution to make your product more lightweight, more productive, more environment-friendly or simply better. Poraver[®] strives to support innovative companies in the process of improving or expanding their market position.



ECOLOGY

The widely available raw material for Poraver[®] is post-consumer recycled glass, which for technical reasons is not used by the glass industry to manufacture new products. Poraver[®] utilizes this cullet and closes a gap in the recycling process. By using Poraver[®] you are making an active contribution to the environment and at the same time protecting natural resources.

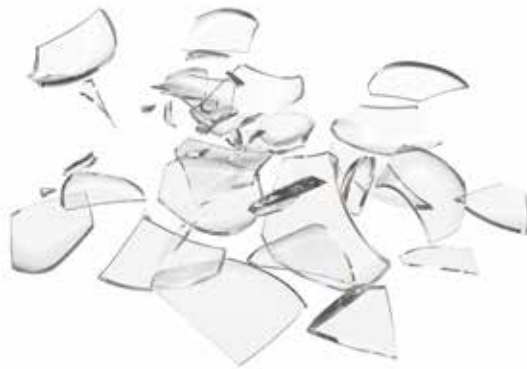


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RAW MATERIAL

More than 7,000 years ago, man discovered glass. Today glass is a high-tech, industrially manufactured product. No other material is coincidentally so versatile in processing, stable and spotlessly clean. Glass can also be recycled without losing any of its striking properties. It will always remain glass.



ISO 9001

Poraver[®] delivers excellent performance and consistent quality that customers have come to expect from us for 30 years now. Our manufacturing plants are registered to ISO 9001 standards supporting well controlled processes and consistent results.



PORAVER[®] AND LEED[®]

The LEED (Leadership in Energy and Environmental Design) Green Building Rating System is an international benchmark for developing high-performance, sustainable or "green" buildings. Products with Poraver[®] can help to contribute valuable points toward LEED-certified projects.

Six ways that Poraver[®] can assist you with LEED:

- Poraver[®] creates sustainable sites
- Poraver[®] enhances energy performance
- Poraver[®] is made from post-consumer recycled glass
- Poraver[®] is manufactured locally
- Poraver[®] enhances thermal comfort
- Poraver[®] is innovative



*Raw material
glass cullet*

Glass powder

Poraver® expanded glass

BENEFIT FROM PORAVER[®]

Simply enhanced

Poraver[®] expanded glass makes industrial products more lightweight, more productive and easier to apply. Poraver[®] improves significantly the performance of your products. Poraver[®] is the lightweight aggregate you can trust. Our packaging and delivery alternatives and intelligent solutions will work seamlessly with your manufacturing process. Seize the Poraver[®] advantage.

MANUFACTURING

Poraver[®] expanded glass beads are manufactured using a special self-developed process. 30 years ago our company was the first producer to manufacture industrially expanded glass granulate from post-consumer recycled glass. The cullet is finely ground, mixed and formed to granules. After this the raw grain is getting sintered and foamed (expanded) in the rotary kiln to create lightweight spheres with a fine closed cellular pore structure.



PURELY MINERAL
NON-COMBUSTIBLE
LONG-TERM STABILITY
IMPROVED PERFORMANCE AND
WORKABILITY OF YOUR PRODUCT
THANKS TO SPHERICAL GRANULES
AMORPHOUS GLASS STRUCTURE
PREVENTS DANGER OF SILICOSIS

Thanks to the multicellular structure the spheres are very lightweight and provide high compressive strength and thermal insulating properties.

PROPERTIES AT A GLANCE

LOW DENSITY AND
HIGH COMPRESSIVE STRENGTH
THERMAL-INSULATING PROPERTIES
SOUND ABSORPTION PROPERTIES
ECOLOGICAL, MADE FROM POST-
CONSUMER RECYCLED GLASS



GRAIN SIZES

The Poraver[®] granulates are expanded in a rotary kiln at approximately 800 °C. This process generates a fine-pored, creamy white, lightweight, spherical granulate that is sieved and sorted into different grain sizes.

Poraver[®] is available in six standard and two special grain sizes from 0.04 mm to 8 mm.

PERFECTLY SUITED FOR THE
COMBINATION WITH LIME, CEMENT
AND OTHER BINDERS
NOT A HOST FOR PESTS, RODENTS,
NOR MOULD GROWTH
HEALTH-FRIENDLY MATERIAL,
ANTI-ALLERGEN
SOLVENT-FREE & ODOUR-NEUTRAL
COLOUR CREAMY WHITE

Poraver[®] is industrially manufactured with consistent quality and offers a suitable lightweight aggregate solution for many fields of application.



DRY MORTAR AND CONSTRUCTION CHEMICAL PRODUCTS

Lighter, better, faster...

...attributes which any product loves to claim. For this reason, Poraver[®], as the preferred lightweight aggregate, excels in dry mortar and construction chemical products. Thanks to its beneficial properties this innovative lightweight filler meets even the most demanding product requirements. Poraver[®] is perfectly suited for the combination with lime, cement and other binders. Its spherical grain shape and very low density optimise both the formulation and the performance of your product.



✓ RENDERS AND PLASTERS

Poraver[®] facilitates higher yield, higher layer thicknesses and better spreading behaviour. Renders and Plasters with Poraver[®] excel also by superb thermal insulation and sound absorption properties, Class A fire safety rating and resistance to UV radiation and micro-organisms.



✓ CEMENTITIOUS ADHESIVES

Poraver[®] supports the most important features of advanced tile adhesives. The spherical shape of its granules improves the spreading behaviour. While its low density increases coverage up to 60 %. Poraver[®] reduces the E-modulus and its creamy white colour is also suitable for the production of white adhesive for marble applications.





DRY MORTAR AND CONSTRUCTION CHEMICAL PRODUCTS

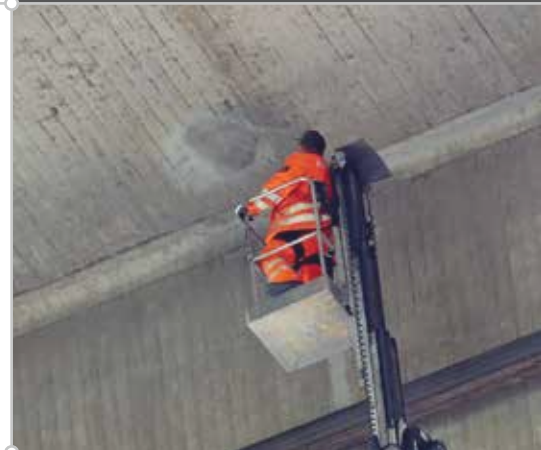
Applications with Poraver[®]

▼ BASE COATS FOR ETICS

Poraver[®] scores with the roundness of its granules and high strength. The resulting ball-bearing effect offers significant advantages in terms of spreading behaviour and application properties. The low density of Poraver[®] results in substantially higher area coverage, good thermal insulation properties as well as reduction in material weight.

▼ UNDERLAYMENTS / CONCRETE REPAIR PRODUCTS

Poraver[®] supports the spreading behaviour by the spherical shape of its granules. Its low density results in up to 35 % higher yield with a simultaneous reduction of the weight, which is advantageous especially for meeting engineering requirements on restoration and renovation projects. E-modulus (modulus of Elasticity) can also be reduced without sacrificing strength.





PANELS AND BOARDS

Low weight, easy to cut and fasten.

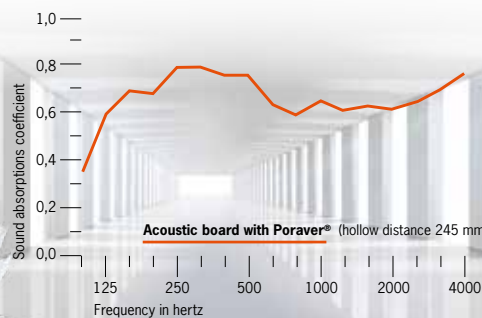
Poraver[®] is the preferred lightweight aggregate for a wide range of panels and boards. Their low weight, high rigidity and easy processing have made decorative wall and ceiling panels, acoustic panels and facade carrier boards with Poraver[®] very popular.

Additional distinctive advantages include the insensitivity of Poraver[®] to heat and cold and the positive moisture-regulating properties.



ACOUSTIC AND COOLING/ HEATING PANELS

The porous structure of acoustic panels with Poraver[®] offers excellent sound absorption. Normally no extra sound absorber is required. In addition this allows smooth and jointless surfaces because no sound apertures are required as with conventional systems. Various innovative panel systems with Poraver[®] have been developed for walls and ceilings. They combine sound insulation, air conditioning, non-combustible properties with a seamless appearance. Applications include offices, conference rooms, exhibition and concert halls.



CARRIER BOARDS FOR FACADE SYSTEMS

Due to its resistance to heat, cold and humidity Poraver[®] expanded glass is also ideal for carrier boards in lightweight, ventilated rainscreen cladding systems. These carrier boards with Poraver[®] are suitable for glass, stone or render finishes and provide excellent weather protection, impact resistance and can even be used to form tight curves. Such systems allow renovation and redesign with ease.





PANELS AND BOARDS

Applications with Poraver[®]

▼ LIGHTWEIGHT BOARDS

Poraver[®] expanded glass provides high compressive strength, resistance to cold and humidity and is non-combustible. Consequently, Poraver[®] is used in boards and panels for both commercial and residential interiors. Thanks to their low weight optimised stability and easy handling, lightweight boards with Poraver[®] are popular among craftsmen. The boards are comfortable to handle and easy to cut and fasten like wood.



▼ FIRE RESISTANT BOARDS

Poraver[®] is pure glass and therefore non-combustible (A1 according DIN 4102) and releases no harmful gases when heat is applied. Poraver[®] is ideal for mineral bonded fire resistant boards for wall, ceiling and facade construction. The advantage of fire safety, high flexural strength and high wear resistance in combination with weight reduction opens up a wide spectrum of opportunities for fire resistant applications.





FILLS

for thermal insulating and leveling.

Poraver[®] is completely safe and easy to handle. Poraver[®] combines an environmentally compatible material with sustainable characteristics when used for fills. It is also very light and still resistant to pressure, possesses long-term stability, is recyclable and offers no host for pests, rodents, nor mould growth. Poraver[®] fills are used as loose fills for thermal insulation with non pressure load requirements or as cement or resin-bound fills for pressure load requirements.



▼ LOOSE FILLS

Poraver[®] has great free-flowing properties due to its spherical shape and easily fills every void in beamed ceilings, floors and walls for thermal insulation. It is also very easy to cover pipes and cable ducts. Facing formwork for vertical interior insulation can be easily backfilled too. The environmentally friendly Poraver[®] fill is very light, non-combustible, moisture-resistant and provides long-term stability.

▼ CEMENT-BOUND FILLS

Poraver[®] cement-bound fills combine structural and thermal performance. It can be used as lightweight screed to adjust the height of floors or as levelling fill over cables and pipelines. Thanks to its low weight and moisture resistance, it can also be used on vaulted and trapezoidal steel ceilings and as a non-combustible pipe duct insulation. The easy handling and quick drying properties reduce man hours spent on the construction project.





FILLS

Applications with Poraver[®]

▼ RESIN-BOUND FILLS

Poraver[®] is ideal as a lightweight, resin-bound drainage screed for roof terraces and balconies. As a cement-free and water-permeable system, problems such as efflorescence and frost damage can so be effectively avoided. Poraver[®], as a resin-bound fill, is also ideally suited as thermally insulating slope screed on flat roofs or as a lightweight marine screed.

▼ HEAT STORAGE

Because of its very low thermal conductivity, its high grain strength and the resistance to heat, moisture and rodents, Poraver[®] is ideal as an insulation material for all kinds of heat storage systems. The ease of use and the fact that it can be conveyed by air from bulk silo trucks are further advantages.





LIGHTWEIGHT CONCRETE

Weight reduction and thermal insulation.

Poraver[®] expanded glass is an ideal lightweight aggregate for concrete applications as it offers a lower density while increasing the overall yield. For precast applications, lightweight concrete also provides cost savings for handling and transportation. In addition, lightweight concrete is non-combustible, sound absorbing and very economical. With Poraver[®] expanded glass, lightweight concrete is a pure mineral and ecological building product that can be easily recycled when required.



▼ LIGHTWEIGHT CONCRETE

In particular for weight reduction, Poraver[®] replaces solid, heavy aggregates for lightweight concrete applications such as architectural precast construction, precast stairs, precast wall panels or bathroom modules. The reduced weight allows an easy transport and results in freight cost savings.

▼ THERMALLY INSULATING LIGHTWEIGHT CONCRETE

Best thermal insulation properties, low weight, good mechanical strength and optimum sound insulation characterise lightweight concrete blocks as well as monolithic or clamshell prefab wall systems with Poraver[®]. The lower weight allows comfortable handling and shorter construction times.





LIGHTWEIGHT CONCRETE

Applications with Poraver[®]

▼ STONE VENEER / WALL CLADDING

With modern moulding techniques and formulations true to nature looking veneer stones are made from lightweight concrete. Poraver[®] supports optimum results through its consistent quality and ease of processing. The low weight of lightweight concrete veneer stones saves both freight costs and installation time.

▼ SPECIALISED CONCRETE

Specialised concretes with Poraver[®] persuade with low weight, frost resistance, water resistance and durability. Especially the combination of low density and high grain compressive strength makes Poraver[®] the ideal lightweight aggregate for architectural concrete, fiber reinforced concrete or laminate/textile concrete.





MINERAL CASTING

Weight reduction and thermal insulation.

Mineral casting is a highly filled resin system consisting of mineral fillers (about 70 - 90 % by weight) as quartz gravel, quartz sand and rock flour and a small proportion binder (about 10 - 30 % by weight). The material is mixed and poured cold or warm, depending on the manufacturing method, as a homogeneous mass. The material is also known under the name of polymer concrete or reaction resin polymer concrete.



▼ SOLID SURFACES CULTURED MARBLE

Solid surfaces and cultured marble with Poraver[®] are used for kitchen counter tops and vanity tops. Poraver[®] is a suitable replacement for traditional resin fillers such as calcium carbonate or other engineered mineral filler systems. Poraver[®]'s various size range gives engineers great flexibility when formulating resin mixtures and slurries.

▼ WEIGHT REDUCTION

Due to its high density (> 2000 kg/m³) mineral casting and polymer concrete components are often difficult to handle. Products with Poraver[®] are up to 70 % lighter compared to those with conventional fillers such as calcium carbonate. In most cases, reduction of weight also means a reduction in freight costs and hence lower energy consumption.



▼ APPLICATIONS

With the slightly rough surface of Poraver[®] a good adhesion to different resin systems is possible. A surface treatment is in most cases not necessary to guarantee high mechanical properties of the compound.

MINERAL CASTING

- Sanitary ware (bathtubs, sinks)
- (Outdoor-) furniture
- Windowsills
- Vanity tops and counter tops

POLYMER CONCRETE

- Structural components
- Machine beds
- Polymer concrete pipes
- Concrete repair
- Artificial stones and veneers





MINERAL CASTING

Applications with Poraver[®]

ADVANTAGES WITH PORAVER[®] IN MINERAL CASTING AT A GLANCE

- **COST REDUCTION**
- **WEIGHT REDUCTION**
Products with Poraver[®] are up to 70 % lighter
- **IMPROVED PROPERTIES**
such as thermal insulation, noise reduction, fire resistance
- **PROCESSING ADVANTAGE**
because of its spherical grain Poraver[®] provides easy dosage and improves the workability of the casting material
- **REDUCED THERMAL STRESS**
therefore reducing or eliminating tension in the components
- **EASY TOOLING OF CURED PARTS**
- **NEW DESIGN POSSIBILITIES**
weight reduction and thermal insulation enable new application areas for molded mineral in façades elements and decorative systems
- **ECOLOGY**
Poraver[®] is pure mineral, made from post-consumer recycled glass. With Poraver[®] you are using an environmentally friendly raw material and saving natural resources
- **MAKE YOUR PRODUCTS LEED-COMPLIANT**
Products with Poraver[®] can help to contribute valuable points toward LEED-certified projects





MORE APPLICATIONS

with Poraver[®] expanded glass.

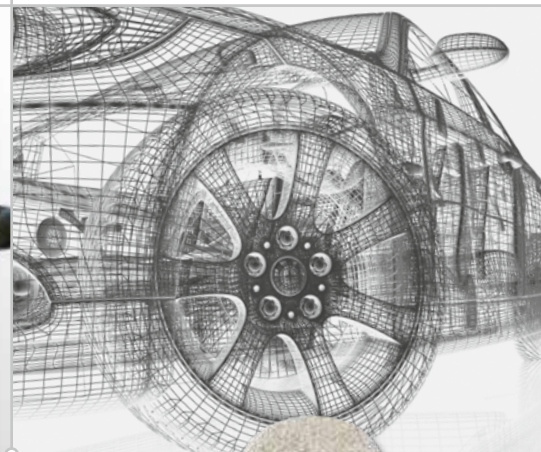
Poraver[®] offers many opportunities for optimising products to make them lighter, more pressure-resistant, more productive, easier to use or more environmentally friendly. Poraver[®] has entered into new areas of application next to building materials. We build on experience and innovation to offer you even more applications in future. The basis for this is our search for new technologies, new applications and new markets as well as the continuous optimisation of our processes and procedures.

PAINTS & WALLPAPERS

Modern wall designs with an individual character are becoming increasingly popular. Poraver[®] gives wall paints a grainy structure and makes it easy to apply because of the spherical grain shape. Wallpapers can also be refined with white or coloured Poraver[®] grains to produce striking surfaces. Poraver[®] is VOC-free and is delivered in a quality that contains no broken grains.

AUTOMOTIVE

Lightweight construction is an omnipresent theme in automotive technology. Low weight and high strength, as well as defined and adjustable deformation characteristics are required. Innovative composite materials from Poraver[®] in a plastic or metal matrix meet these requirements, and are used as a support core in hybrid crash absorber structures or in lightweight chassis.



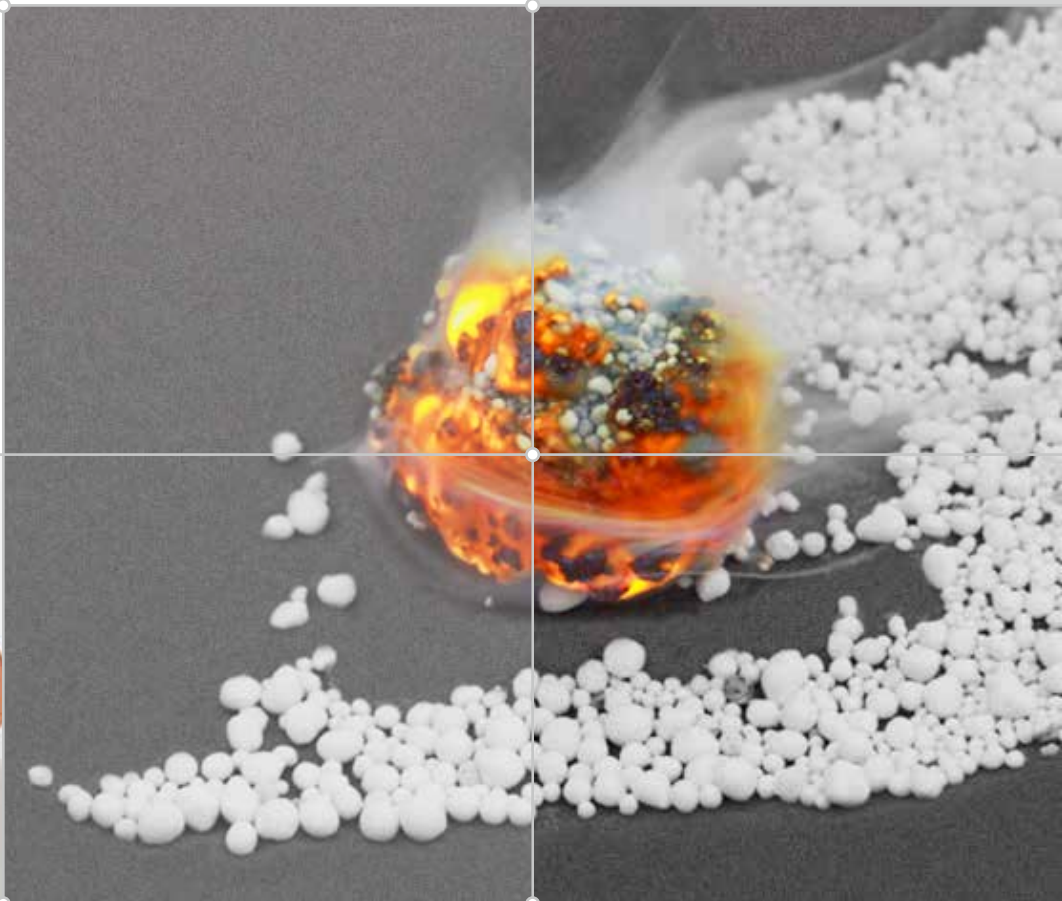


MORE APPLICATIONS

Applications with Poraver[®]

▼ NEW INNOVATIONS

Whether as a lightweight aggregate in model construction, as a decorative material, as horticulture granulate or for soil improvement, as fire extinguishing medium, as water filter medium, abrasive medium, as prefabricated sanitary components or as a demineralization compress for historic masonry, Poraver[®] optimizes products in many different ways.



Just tell us what you are looking for.



DEVELOPING INNOVATIONS TOGETHER

with Poraver[®]

New standards. New trends. New technologies. Don't wait for the future. Shape it yourself – with Poraver[®]. We are a powerful development partner with extensive know-how backed by modern laboratories and test facilities. Our experienced team provides support for optimising your existing products and developing new innovations. Our services range from application engineering support and testing to marketing. Whatever you need, together we'll find the best solution to ensure your success in the market.

What can we do for you?



TECHNICAL CENTRE

Poraver[®] has its own technical centre with grinder, mixer and rotary kiln at the production site in Postbauer-Heng. The modern pilot plant is used for research and product development purposes. Our customers' and our own engineering processes are tested, optimised and transferred to production scale.

CONTACT

Are you looking for a formulation for a new application? Do you need samples as quickly as possible? Poraver[®] has the right person to contact for all your questions.

TECHNICAL WORKSHOPS

Take advantage at one or more of our one day free of charge workshops to learn how to enhance your products with Poraver expanded glass.

Get in touch with us to set a date.

PRODUCT DEVELOPMENT SUPPORT

- *Determination of compressive strength and flexural strength*
- *Determination of bonding strength*
- *Determination of colour*
- *Wet chemical analysis*
- *Sample panels production*
- *Determination of E-modulus*
- *Testing of fresh mortar properties*
- *Measurement of thermal conductivity of building materials*
- *Laser granulometer to determine the grain size distribution (1 – 1,000 µm)*
- *Digital microscopy*
- *SEM recordings to 10,000-fold*
- *Radiological examination*
- *IR Reflection measurement*

TOPICS

- *Comparison of Lightweight Aggregates*
- *SLU's & CTA's*
- *Cast Resins*
- *Glass Fiber Reinforced Concrete (GFRC)*
- *Water Treatment*
- *Panels/ Boards*
- *Plaster*



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TECHNICAL DATA SHEET

Lightweight aggregate according to DIN EN 13055-1

Poraver[®] expanded glass is available in five basic and two special grain sizes. With this wide variety of grain sizes from 0.04 mm to 4 mm, Poraver[®] expanded glass offers a suitable lightweight aggregate solution for every field of application.

Product name	BASIC GRANULAR SIZES						SPECIAL GRANULAR SIZES	
	Poraver [®] 0.1-0.3	Poraver [®] 0.25-0.5	Poraver [®] 0.5-1	Poraver [®] 1-2	Poraver [®] 2-4	Poraver [®] 4-8	Poraver [®] 0.5-1.25	Poraver [®] 0.04-0.125 ^{x3)}
Granular size in mm	0.1-0.3	0.25-0.5	0.5-1	1-2	2-4	3-8	0.5-1.25	0.04-0.125
Bulk density in kg/m ³	400 ± 60	340 ± 30	270 ± 30	230 ± 30	190 ± 20	170 ± 30	260 ± 30	530 ± 70
Particle density in kg/m ³	950 ¹⁾ ± 150	700 ¹⁾ ± 80	500 ¹⁾ ± 80	400 ¹⁾ ± 60	320 ²⁾ ± 40	300 ²⁾ ± 40	490 ¹⁾ ± 80	1,400 ⁶⁾ ± 300
Crushing resistance in N/mm ² according to DIN EN 13055-1 ³⁾	≥ 4.5	≥ 2.6	≥ 2.0	≥ 1.6	≥ 1.4	≥ 1.2	≥ 1.9	- ⁶⁾
Oversize % by mass	≤ 10					≤ 10 ^{x1)}	≤ 10	≤ 10
Undersize % by mass	≤ 15					≤ 15 ^{x2)}	≤ 15	≤ 15
pH value	8 - 12							8 - 12
Moisture content % by mass	≤ 0.5							≤ 0,5
Water absorption % by volume 5 min. ⁴⁾	33	15	9	7	4.5	3	10	-
Water absorption % by mass 5 min. ⁴⁾	35	21	18	19	14	10	20	-
Softening point	approx. 700 °C							approx. 700 °C
Colour	creamy white							creamy-white
Thermal conductivity W/(m·K)	-	-	-	-	0.07 ⁵⁾	0.07 ⁵⁾	-	-
CE according DIN EN 13055-1	•	•	•	•	•	•	•	-
Approval Z-3.42-1894	•	•	•	•	•	•	•	-
Approval Z-23.11-114	-	-	-	-	•	•	-	-

¹⁾ Test according to DIN V 18004, calculation of apparent (relative) density please see method DIN EN 1097-6

²⁾ Apparent (relative) density according to EN 1097-6

³⁾ Values according to DIN V 18004 on request

⁴⁾ Approximate values due to possible measurement tolerances

⁵⁾ Calculated values DIBt according to Approval Z-23.11-114 (Thermal insulating material, non combustible according to construction material class DIN 4102-A1)

⁶⁾ Minimal measurements due to fineness of the material

^{x1)} Oversize at 8,00 mm

^{x2)} Undersize at 3,15 mm

^{x3)} Expanded glass granules, manufactured in Canada











The strength grades may vary within the tolerance range of bulk densities. The availability and delivery conditions for special grain sizes will be agreed on an individual basis.



PORAVER[®] IN PRACTICE

The innovative lightweight aggregate for advanced products

Its numerous benefits make Poraver[®] expanded glass a proven lightweight aggregate in advanced products for the building products and construction chemical industry. Among others, it serves as a lightweight aggregate in dry mortars and construction chemical products, panels and boards, lightweight concrete, thermal insulation fills and mineral casting. Poraver[®] offers many possibilities for product optimisation. Ask our experienced team, describing your specific requirements.

APPLICATION FIELDS	RECOMMENDED PORAVER [®] GRAIN SIZE IN MM								ADVANTAGES
	0.04-0.125	0.1-0.3	0.25-0.5	0.5-1	0.5-1.25	1-2	2-4	4-8	
 Plaster / Stucco / Render			•	•	•	•			<ul style="list-style-type: none"> - weight reduction - high yield - thermal insulation <ul style="list-style-type: none"> - sound absorption - improved spreading behavior - crack reduction
 Tile Adhesives / Cementitious Adhesives	•	•	•						<ul style="list-style-type: none"> - weight reduction - high yield - increased flexibility <ul style="list-style-type: none"> - reduced slip - improved spreading behavior - ease of application
 Base coats for ETICS*			•	•	•				<ul style="list-style-type: none"> - weight reduction - high yield - increased flexibility <ul style="list-style-type: none"> - improved spreading behavior - ease of application
 Mortars				•	•	•	•		<ul style="list-style-type: none"> - thermal insulation - high yield <ul style="list-style-type: none"> - weight reduction - ease of application
 Self Leveling Underlayments	•	•	•						<ul style="list-style-type: none"> - increased flexibility - high yield <ul style="list-style-type: none"> - weight reduction
 Concrete Repair Products	•	•	•	•					<ul style="list-style-type: none"> - weight reduction - high yield - increased flexibility <ul style="list-style-type: none"> - improved spreading behavior - ease of application - lower sag levels
 Panels / Boards			•	•	•	•	•		<ul style="list-style-type: none"> - cost reduction (savings in binder) - weight reduction - non-combustible <ul style="list-style-type: none"> - thermal insulation - sound absorption - easy to cut and fasten
 Lightweight Concrete / Concrete Blocks / Stone Veneer				•	•	•	•	•	<ul style="list-style-type: none"> - weight reduction - thermal insulation <ul style="list-style-type: none"> - high compressive strength
 Fills for Thermal Insulating and Leveling						•	•	•	<ul style="list-style-type: none"> - weight reduction - thermal insulation - non-combustible - easy handling <ul style="list-style-type: none"> - not a host for pests, rodents, nor mould growth - long-term stability
 Mineral Casting / Solid Surface / Cultured Marble			•	•	•	•	•		<ul style="list-style-type: none"> - cost reduction (savings in binder) <ul style="list-style-type: none"> - weight reduction - thermal insulation

*External Thermal Insulation Composite Systems



PORAVER[®] WORLDWIDE

Our distribution partners

The Dennert Poraver GmbH and Poraver North America Inc. directly serves customers in Europe and North America. Our sales team provides technical expertise and is committed to assisting your efforts. To provide the best international customer support Poraver[®] has also in numerous countries official sales agencies. Please refer to the list on our website for the contacts. If your country is not listed or if you have any questions, please don't hesitate to contact us directly.



Today Poraver[®] is represented in over 30 countries around the world. This network is constantly being extended and is not only customer service, but also product and sales support for our license partners.

Please visit our website www.poraver.com/en for more details



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