PORAVÉR® AND BUILDING
FROM THE BRILLIANT IDEA OF RECYCLING GLASS TO PORAVER® EXPANDED GLASS

Recycling is efficient and sustainable, saves energy and natural resources.

Glass is one of the very few examples where the same material can be recycled over and over again. That’s why glass bottles and jars are an integral part of any community recycling program. Approximately 30% less energy is required to melt cullet compared to virgin raw materials. 1 kg cullet used replaces 1.2 kg virgin raw material. Therefore glass recycling is key to efficient utilisation of resources.

BY USING PORAVER® YOU ARE MAKING AN ACTIVE CONTRIBUTION TO THE ENVIRONMENT AND AT THE SAME TIME PROTECTING NATURAL RESOURCES

The raw material for Poraver® expanded glass is post-consumer recycled glass, which for technical reasons can no longer be recycled by the glass industry to manufacture new products. Poraver® utilises this cullet and closes a gap in the recycling process.
PORAVER® EXPANDED GLASS
IS ECOLOGICAL

PORAVER® IS PURE GLASS
Glass is made from natural and sustainable raw materials: sand, soda ash and limestone. No other material or chemical layers are needed to complete it.

PORAVER® REDUCES LANDFILL WASTE
Glass can be recycled, but not all cullet can be used to manufacture new glass products. Poraver® utilises this glass and diverts it from going to landfills.

PORAVER® PROTECTS NATURAL RESOURCES
Using 1 kg of post-consumer recycled glass for manufacturing Poraver® saves 1.2 kg of virgin raw materials. Also, the energy and CO₂ emissions resulting from the extraction and transportation of raw materials are avoided. Of course, cullet also has to be transported, but on average, the shipping distance for cullet is much shorter than that of raw materials.

PORAVER® IS HEALTHY LIVING:
• Purely mineral
• Non-allergic
• VOC-free
• Odourless
• Not a host for pests, rodents, nor mould growth
• Non-combustible

PORAVER® IMPROVES THERMAL INSULATION
• Reduction of U-value
• Reduction of product density
• Optimisation of vapour diffusion

PORAVER® REDUCES CO₂ EMISSION FROM TRANSPORT

<table>
<thead>
<tr>
<th>COMPARISON TRANSPORT OF 25 TONS TILE ADHESIVE</th>
<th>STANDARD TILE ADHESIVE</th>
<th>LIGHTWEIGHT TILE ADHESIVE WITH PORAVER®</th>
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</thead>
<tbody>
<tr>
<td>MATERIAL USE</td>
<td>kg/m²</td>
<td>lb/ft²</td>
</tr>
<tr>
<td>PER TRUCK LOAD (25 tons)</td>
<td>m²</td>
<td>ft²</td>
</tr>
<tr>
<td>CO₂ EMISSION OF A TRUCK</td>
<td>g/kg at 250 km</td>
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- Comparison of standard and lightweight tile adhesive in terms of material use, per truck load, and CO₂ emissions.

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Environmental responsibility is an increasing priority in building design and products. The LEED (Leadership in Energy and Environmental Design) Green Building Rating System is an international benchmark for developing high-performance sustainable or “green” buildings.

Based on proven scientific standards, LEED promotes state-of-the-art strategies that emphasise benefits for the environment, economy, health and community. Applicable to newly constructed or renovated buildings, LEED promotes a holistic approach to sustainability by recognizing performance in five key areas:

- Sustainable site development
- Water savings
- Energy efficiency
- Materials selection
- Indoor environmental quality

Building projects earn one or more points toward LEED certification by meeting or exceeding each credit’s technical requirements. Points add up to a final score that reflects one of four possible levels (Certified, Silver, Gold or Platinum) of certification – the more points awarded, the higher the building performance.

LEED certification applies only to building projects, not products or services. While products cannot be LEED-certified, they can help contribute toward earning “greenbuilding” status for a project.
MAKING YOUR PRODUCTS LEED®-COMPLIANT WITH PORAVER®

There are numerous LEED rating systems for various project types, including LEED for New Construction and Major Renovation, LEED for Existing Buildings, LEED for Commercial Interiors and LEED for Core & Shell Construction. Products with Poraver® can help to contribute valuable points toward LEED certified projects:

- Poraver® creates sustainable sites
- Poraver® enhances energy performance
- Poraver® is made from post-consumer recycled material
- Poraver® enhances thermal comfort
- Poraver® is innovative

### SUSTAINABLE SITES

**Heat Island Reduction:**

- Poraver® enhances the SRI (Solar Reflectance Index) and makes ballasted roof systems lighter.

### ENERGY & ATMOSPHERE

**Optimize Energy Performance:**

- LEED-NC credit EA 1 1-19 Points
- LEED-EB credit EA 1 1-18 Points
- LEED-CI credit EA c1.3 5-10 Points
- LEED-CS credit EA 1 3-21 Points

### MATERIALS & RESOURCES

**Recycled Content:**

- LEED-NC credit MR 4 1-2 Points
- LEED-CI credit MR 4 1-2 Points
- LEED-CS credit MR 4 1-2 Points

**Regional Materials:**

- LEED-NC credit MR 5 1-2 Points
- LEED-CI credit MR 5 1-2 Points
- LEED-CS credit MR 5 1-2 Points

### INDOOR ENVIRONMENTAL QUALITY

**Thermal Comfort - Design:**

- LEED-NC credit IEQ 7 1 Point
- LEED-CS credit IEQ 7 1 Point

### INNOVATION & DESIGN PROCESS

**Innovation in Design:**

- LEED-NC credit ID 1 1-5 Points
- LEED-CI credit ID 1 1-5 Points
- LEED-CS credit ID 1 1-5 Points

Poraver® is manufactured from post-consumer recycled glass and provides VOC-free insulating properties. Products with Poraver® can potentially address a need or provide a quantifiable energy saving, health or environmental benefit in the spirit of LEED that is otherwise not covered in the Rating System.
PORAVEN® IS THE ECOLOGICAL LIGHTWEIGHT AGGREGATE IN

- Tile adhesives
- Mortars
- Renders, Plasters, Stucco
- Putty
- Self leveling underlayments
- Thermal insulating fills
- Lightweight concrete
- Lightweight concrete blocks
- Panels and Boards
- Mineral casting
- Cultured marble
- Textured Paints and Wall papers

www.poraver.com