

# lambdapor<sup>®</sup> 753 premium generation2

Technical data sheet | Revision 00 | May 2025

## Description:

**lambdapor<sup>®</sup> 753 premium gen2** is an expandable polystyrene granulate (EPS) with graphite which can be converted into insulation boards with very low thermal conductivity.

**lambdapor<sup>®</sup> 753 premium gen2** contains polymeric flame retardant and is certified to DIN 4102/B1 and EN 13501-1 class E; to comply with these certification it must not be mixed with other materials.

## Application:

**lambdapor<sup>®</sup> 753 premium gen2** can be processed to low and medium density blocks with very low thermal conductivity. The blocks can be further converted to thermal insulation boards for facade, roof, ceiling and floor.

<b>Density range:</b>	11 - 25 kg/m <sup>3</sup>
<b>Granulate geometry:</b>	bead-shaped granulate
<b>Screen limits:</b>	0.6 - 1.5 mm
<b>Typical granulate diameter:</b>	0.7 - 1.3 mm (> 90 % by weight)
<b>Pentane content</b> (at the time of packaging):	≈ 5.5 % by weight
<b>Water content</b> (at the time of packaging):	< 0.3 % by weight

## Colour:

The special infrared blocking additives cause the grey colour of the pre-foamed beads.

## Packaging and storage:

**lambdapor<sup>®</sup> 753 premium gen2** is shipped in octabins (height max. 192 cm) on wooden pallets (114 x 114 cm) containing 1,150 kg net of material. The octabins are not weather- or water-proof and must therefore not be exposed to outdoor conditions.

It is not recommended to stack octabins more than one layer high. In case of double-stacking octabins under controlled conditions, the recommendations laid out in the document „Instructions for stacking sunpor octabins“ must be followed.

In order to obtain the desired properties of **lambdapor<sup>®</sup> 753 premium gen2**, the raw material should be stored below 20 °C and be processed within three months.

## Processing:

### > Pre-expansion:

**lambdapor<sup>®</sup> 753 premium gen2** can be pre-expanded with discontinuously operating, state-of-the-art pre-expanders in one or two steps.

Particularly low target densities can be achieved with two pre-expansion steps, whereby the density after first pre-expansion should be 1.5 times target density.

Intermediate storage time before second pre-expansion should be between 2 and 6 hours.

### > Intermediate aging:

The intermediate maturing time depends on density after pre-expansion and ambient conditions in silo hall. Typical maturing times are between 4 and 24 hours.

### > Moulding:

**lambdapor<sup>®</sup> 753 premium gen2** can be processed on state-of-the-art block moulds. Added regenerate should have similar density as pre-expanded beads to avoid segregation in block. Regenerate will decrease the maximum achievable mechanical strengths in the block.

During processing of **lambdapor<sup>®</sup> 753 premium gen2** small amounts of dust can be created by abrasion of the beads. As dust is mainly originating from the pre-expansion process, appropriate measures to extract the dust have to be taken in processors plant.

## Cutting:

Hot wire cutting of **lambdapor<sup>®</sup> 753 premium gen2** should be carried out with oscillating wires. Before cutting, the blocks should be stored for a sufficient long period to ensure that it is essentially free from pentane.

### Packaging of boards:

We recommend that **lambdapor<sup>®</sup> 753 premium gen2** moulded parts are packed in opaque plastic film, as their exposure to direct sunlight can result in fading and distortion.

### Shipping:

<b>UN-Number:</b>	2211
<b>Designation:</b>	Polymeric beads, expandable
<b>Class:</b>	9
<b>Packing Group:</b>	III ADR

### Recycling:

**lambdapor<sup>®</sup> 753 premium gen2** waste is suitable for mechanical recycling. Clean production waste can be used directly as regenerate in blocks; it is recommended to dedust the regenerate before use.

### Safety instructions:

Flammable pentane-air mixtures may be generated during storage and processing of **lambdapor<sup>®</sup> 753 premium gen2**. For this reason, adequate ventilation must be ensured (LEL pentane 1.3 % by volume).

The blowing agent pentane escapes relatively slowly from EPS foam blocks. Thus, when cutting recently moulded blocks, the formation of a flammable pentane-air mixture has to be anticipated.

In addition, all conceivable sources of ignition must be kept away and the build-up of electric charges has to be prevented. A smoking ban must be observed at all costs!

Appropriate extraction must be provided when cutting the blocks, as the vapours produced contain small amounts of styrene in addition to pentane. The regionally applicable occupational exposure limits must always be observed.

Further information can be found in the **safety data sheet** (see [www.sunpor.at/en/downloads/safety-data-sheet](http://www.sunpor.at/en/downloads/safety-data-sheet)).