

Suncolor[®] exquisit

Technical Notice

H-21-TM- Suncolor[®]exquisit Revision : 03

Description:

Suncolor[®] exquisit is a bulk-dyed, expandable polystyrene granulate (EPS), which can be processed into coloured, moulded parts with a wall thickness greater than 6 mm. Main application of Suncolor[®] exquisit is the production of sports helmets.

Granulate geometry:

Suncolor[®] exquisit is manufactured by an extrusion process and supplied in form of a cylindrical granulate.

Granulate diameter: Approx. 0.65 mm
Granulate length: Approx. 1.8 mm

The material may contain minor quantities of abrasion.

Pentane content:

> 4.0% by weight

Water content:

< 0.3% by weight.

Colour:

black

Minor colour fluctuations between individual batches cannot be excluded. Colour variation may also result from differences in the density of the foam.

Packaging and storage:

Suncolor[®] exquisit is supplied in Oktabins (1000 kg) and steel drums (125 kg).

The packaging is not rainproof and must therefore not be exposed to outdoor conditions.

In order to obtain the desired properties of Suncolor[®] exquisite, the raw material should be stored below 20°C and be used up within 6 or 12 months.

Processing:

Pre-expansion:

With discontinuously operating state-of-the-art preexpanders, Suncolor[®] exquisit can be pre-expanded to densities of approximately 20 kg/m³.

However, it is important that the pre-expanded beads are completely expelled from the pre-expander after each cycle because any beads remaining in the machine will become lighter in weight and in colour after repeated pre-expansion; this can lead to irregularities in the distribution of colour in the finished parts.

The special gloss finish absorbs somewhat more moisture during the pre-expansion than normal EPS raw materials. For this reason an efficient fluidised bed is required.

Intermediate aging:

With bulk densities between 20 and 35 kg/m³, the intermediate aging time should be between 10 and 24 hours.

With higher specific gravities, the intermediate aging time may be prolonged without difficulty.

Moulding:

Suncolor[®] exquisit can be processed in industry standard automatic moulding machines.

Special steaming settings are not required. The cooling period should be longer than for other types of EPS to prevent the moulded parts from swelling.

Densities lower than 20 kg/m³ should not be used as this may lead to moulding difficulties (collapse of the moulded parts, difficulties with demoulding, unsatisfactory foam quality).



Shipping:

ADR-marking: substance no. 2211:
Polymeric beads, expandable
Class: 9
Packing group: III ADR

Safety instructions:

Flammable pentane air mixtures may be generated during storage and processing of Suncolor® exquisit. Adequate ventilation must be ensured for this reason. All conceivable sources of ignition must therefore be kept away and the generation of electric charges prevented.
When opening the steel drums, it is important to ensure that any excess pressure is released slowly.

Food packaging:

Suncolor® exquisit is manufactured from polystyrene and additives which are suitable for the production of food packaging in accordance with Austrian and German provisions, if not already covered by EU-directives. Checking the suitability of the packaging material for use with foodstuffs is the responsibility of the user.

Further information is given in the Technical Notice TM 301.

Please note:

This Notice reflects our current knowledge. The suitability for concrete applications must be verified by the processor from a technical and legal point of view. Subject to technical changes.