



versalis

TECHNICAL DATA SHEET

Extir®
Expandable polystyrene

VERDI VM A5000 AE

Product description

Extir Verdi VM A5000 AE is an HBCD-free flame retardant expandable polystyrene in the form of spherical beads of medium particle size, containing pentane as blowing agent. Extir does not contain CFC or HCFC.

Extir Verdi VM A5000 AE is an improvement of A 5000 AE in terms of thermal conductivity as VR A5000 AE.

Extir Verdi VM A5000 AE is suitable for production of low-medium density blocks for thermal insulation sector.

Technical data

Bulk density	kg/m ³	590 - 630
Particle size	mm	0.9 - 1.6
Minimum apparent density		
• on a continuous pre-expander after one expansion	kg/m ³	15
• on a continuous pre-expander after two expansions	kg/m ³	10
• on a discontinuous pre-expander	kg/m ³	13
Density range normally used	kg/m ³	11 - 20

Applications

Extir Verdi VM A5000 AE has an improved thermal conductivity value, specially at low density. Extir Verdi VM A5000 AE is used mainly in the construction sector where, for legislative or safety reasons, the use of a flame retardant material is required.

Typical applications are:

- blocks, especially for external thermal insulation
- low density elastified blocks for impact sound absorption (Trittschall)
- void formers, trough formers and culvert formers cut from block
- blocks or slabs for road foundations and civil construction



Processing

Extir Verdi VM A5000 AE can be easily pre-expanded down to 15 kg/m³ after one expansion and down to 11 kg/m³ after a second one. In the latter case it is advisable not to force the first expansion down to minimum obtainable values.

The recommended ageing time before moulding obviously depends on the pre-expanded density and ranges from 6 to 72 hours.

Moulding is characterized by fast cycle times. In addition, due to an excellent reaction to steam, it is possible to mould with a higher content of FR recycled material without significant reduction in properties.

Blocks are cut into sheets of the desired thickness or into shaped articles by means of hot and/or oscillating wires.

General information

It is recommended to keep the product in a dry well ventilated store between 15-20°C. For product packed in octabins the guaranteed shelf-life is one month; product in steel drums has a six months guaranteed shelf-life.

During the processing of Expandable Polystyrene any sparks or naked flames must be avoided and smoking should be forbidden. An adequate electrical grounding of machinery and of pneumatic transport lines is recommended.

For further information concerning storage, packaging and processing precautions please refer to "Styrenics - Technical data sheets" and to the "Extir Safety Data Sheet".

Regarding "flame retardant" properties, Extir AM AE raw materials are officially certified Euroclass E according to EN 13163 Annex E. Products bearing French certification (LNE) or German certification (B1 nach DIN 4102) are provided on request.

The action of the flame retardant additive is exerted only after elimination of blowing agent and, therefore, only after Extir VM AE has been transformed into foamed articles (suitably aged where necessary).

