Technical Information

ORTEGOL® AST

ORTEGOL® AST is an additive used for the production of flexible polyether and polyester polyurethane foams with increased surface conductivity and hence improved antistatic properties.

Physical properties

Appearance	clear, colourless to slightly yellow liquid
Specific gravity (25 °C)	1.08 – 1.10 g/ml
OH number	33 – 38 mg KOH/g
Viscosity (25 °C)	270 – 360 mPas
Solubility	in water and polyol soluble

Instructions for storage

Heat/cold load trials showed that the performance of ORTEGOL® AST is by no means impaired by short-time heating up to 55 °C. The material retains its homogeneity even at temperatures below -15 °C, but it should be warmed up to about ambient room temperature before use.

For ORTEGOL® AST we guarantee a shelf life of at least 6 months upon delivery when kept in factory-sealed containers and protected against long lasting extreme temperatures.

Instructions for use

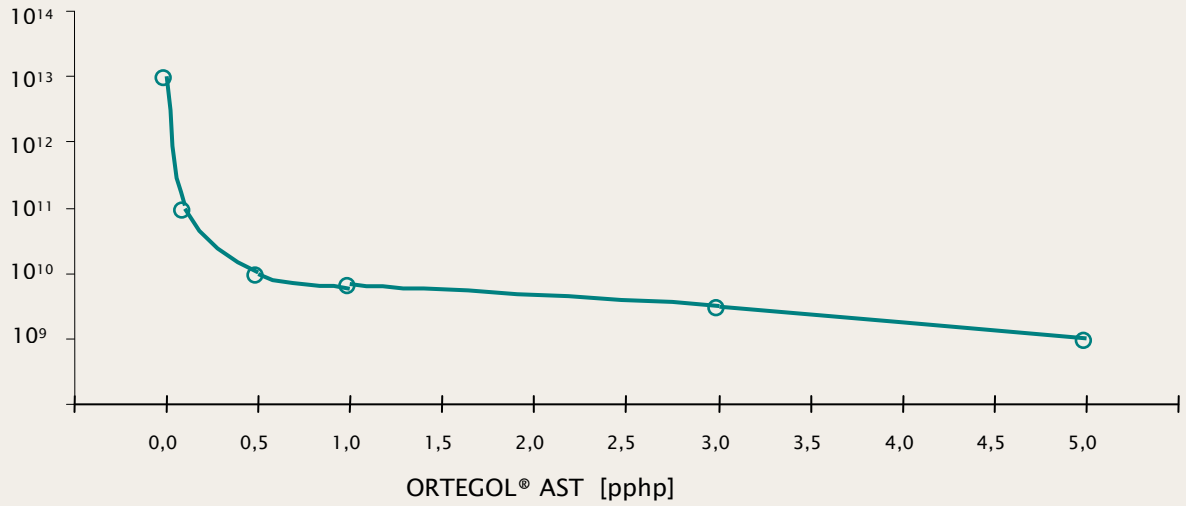
ORTEGOL® AST is a so-called internal antistatic, i.e. it is a component of the formulation used for the foam production. It is preferably fed in a separate stream directly into the mixing head, but it can also be applied as an ingredient of the hydrous amine activator solution. In this case a short preliminary test is recommended in order to ensure perfect solubility for the selected concentration and the applied amine types.

Performance

A conventional flexible polyether foam in the density range of 25 kg/m³ has a surface resistance of approx. 10^{13} – 10^{14} Ω when a voltage of 100 V is applied.

As the applied concentration of ORTEGOL® AST is gradually increased to 5.0 parts by weight per 100 parts polyol the electrical conductivity also rises in accordance with a reduction of the resistance to about 10^{9} Ω. This concentration/performance relation is illustrated in the following graph, which allows to achieve the desired performance by selecting the appropriate concentration. The exponential leveling of the graph also shows, that the effect of dosages exceeding 5.0 parts ORTEGOL® AST is only marginal.

Electrical resistance [Ω] at 100 V



ORTEGOL® AST neither influences the effectiveness of the catalysts nor the breathability of the cell structure.

In combination with red color pastes ORTEGOL® AST can lead to a discolouration in the center of the foam block, depending on the foam grade and the resulting core temperature. In this case it is highly recommend to test for applicability before using ORTEGOL® AST in combination with red pigments.
ORTEGOL® AST is compatible with TEGOCOLOR® Blue, TEGOCOLOR® Yellow, TEGOCOLOR® Green and TEGOCOLOR® Black and can be combined with these color pastes without any decoloration effect.

Packaging

600 kg pallet (24 x 25 kg in cans)
800 kg pallet (4 x 200 kg in steel drums)

For Information

- on classification and labeling in accordance with shipping instructions and the Toxic substances Control Act
- on protective measures during storage and handling
- on measures in case of accidents and fire
- on toxicology and ecological toxicity

please refer to our safety data sheets.

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