STABAXOL® I
Plastic Additives / Hydrolysis Stabilizer

Function
Stabaxol® I is an active antihydrolysis agent for polyester polyurethanes produced by hot casting as well as for adhesives based on polyester polyurethane.

Product description

<table>
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<th>Chemical composition:</th>
<th>Monomeric carbodiimide</th>
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<tr>
<td>Physical form:</td>
<td>slightly yellowish, crystallized melt</td>
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<tr>
<td>Density:</td>
<td>approx. 0.97 g/cm³ (20 °C / 68 °F)</td>
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<td>approx. 0.95 g/cm³ (50 °C / 122 °F)</td>
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<td>Melting Range:</td>
<td>45 - 52 °C / 113 - 126 °F (DSC main peak)</td>
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<td>Viscosity:</td>
<td>16.0 - 24.0 mPa s (50 °C / 122 °F)</td>
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<td>Solubility:</td>
<td>soluble in organic solvents, e.g. aceton, dichloromethane; insoluble in water</td>
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<td>Carbodiimide content:</td>
<td>min. 10.0 %</td>
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The analytical data are general guide values.

Product information
Stabaxol® I is normally being dissolved in the polyester polyol; alternatively, it may be added to the pre-polymer (only with terminal OH-groups). An addition of 1 part by weight Stabaxol® I to 100 parts by weight polyester polyol increases the resistance to hydrolysis up to 7 times. This data was established by tests conducted at 80 % relative humidity. Stabaxol® I gives the best results when added in a concentration of up to 2 parts by weight to otherwise unprotected polyester polyurethane elastomers.
For adhesives we recommend to add 1-2 parts by weight Stabaxol® I to 100 parts by weight adhesive. Prior tests should always be carried out to determine the most suitable dosage, however.

To be most effective, Stabaxol® I should be added to the polyester polyol during the warming-up period, starting at a minimum temperature of 50 °C (122 °F), to a maximum temperature of 120 °C (248 °F). As Stabaxol® I does not disperse readily (it may float undissolved on the surface), it should be stirred intensively. The necessary time and temperature to complete the reaction is shown in the graph below.

Stabaxol® I may slightly accelerate the crosslinking reaction (polyester polyol/iscoyanate). This can be counteracted by adding a very small amount of an organic acid (e.g. citric acid).

Packaging
10 kg metal can/300 kg per pallet, 50 kg metal can/400 kg per pallet, 180 kg metal drum/720 kg per pallet.
(approx. 22 lb metal can/660 lb per pallet, 110 lb metal can/880 lb per pallet, 397 lb metal can/1588 lb per pallet.)
Storage stability
Stabaxol® I can be stored for at least 24 month under cool (below 35 °C / 95 °F) and dry conditions.

Handling & safety
Relevant safety data and references as well as possibly necessary warning labels are to be found in safety data sheet.

® = registered trade mark

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