STABAXOL® P 110
Plastic Additives / Hydrolysis Stabilizer

Function
Stabaxol® P 110 is an antihydrolysis agent for polyester polymers (PET, PBT, TPE), polylactide (PLA) and polyamides (PA).

Product description
Chemical composition: Aromatic polycarbodiimide
Physical form as supplied: amber coloured pastilles
Density: approx. 1.05 g/cm³ (20 °C / 68 °F)
Melting range: Approx. 70 - 90 °C (158 - 194 °F) at approx. 60 °C (140 °F) it begins to sinter above 70 °C (158 °F) it is resinous and tough above 90 °C (194 °F) it is a viscous fluid
Carbodiimide content: > 11.5 wt % (N=C=N)
Solubility: very easily soluble in petrol (gasoline), toluene; poor solubility in acetone, insoluble in alcohols and water

Product information
Depending on the number of acid end groups and the humidity content of the polymer to be stabilized, as well as the stabilizing effect to be obtained, it is recommended to use 0.5 - 2.5 weight-% of Stabaxol® P 110 for polyesters, polyamides and polylactides.

Hydrolysis of PET at 110 °C in saturated steam
The most suitable dosage depends on the requirements to be met and should always be ascertained in preliminary trials. Stabaxol® P 110 may be processed preferably by way of separate feeding or alternatively by direct incorporation as a dry blend. Stabaxol® P 110 is available in Masterbatch form too, various types based upon the corresponding polymers, and thus offering the advantage of much more easier handling in respect of dosage and homogenizing.

Stabaxol® P 110 may be processed on any unit suitable for polyester and polyamide processing which provides sufficient dispersion of the material in the polymer. In respect of the extruder equipment, experience showed that it is advisable to use a twin-screw extruder equipped with a L/D ratio > 38. Appropriate cooling of the feeding zone is recommended to avoid particle accumulation in the feeding area. At processing temperature, traces of volatile matters can escape, which may temporarily cause irritation of skin, eyes and respiratory passages. It is highly recommended to provide adequate local ventilation at all places where Stabaxol® P 110 stabilized products are exposed to temperatures exceeding 200 °C (392 °F). In particular, it is necessary to avoid direct contact with liberated vapours.

**Packing**
20 kg fibre drums/540 kg per pallet (approx. 44 lb/1188 lb per pallet)

**Storage stability**
According to experience available, if stored at about 20 °C (68 °F) in originally closed containers, Stabaxol® P 110 can be kept for at least 24 months without becoming less effective. Store in cool and dry place.

During transportation or in case of prolonged storage at slightly elevated temperatures, one might observe agglomeration of the particles. Please make sure that such agglomerations are being broken prior to use.

**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
This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided - especially that contained in our safety data and technical information sheets - and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold and our advisory service is given in accordance with the current version of our General Conditions of Sale and Delivery.

LANXESS Deutschland GmbH
Business Unit Additives
Kennedyplatz 1
D-50569 Cologne, Germany
http://add.lanxess.com