

Technical Information

Paper Industry

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Afranil® F Liquid

® = Registered trademark of
BASF Aktiengesellschaft

Stock deaerator for use in the production of paper and board and in pulping processes for groundwood and sulphite pulp.

Afranil F Liquid is a versatile stock deaerator which can be added direct to the pulp. It can be used in the production of all types of paper and board made from all types of furnish, including very slow-draining stock.

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Afranil F Liquid

Chemical nature	Polyether derivative of an aliphatic alcohol.
Physical form	Colourless or slightly yellowish liquid.
Storage	Afranil F Liquid has a shelf life of two years in sealed containers.
Materials	On the basis of our experience, we would recommend the following materials for pipes, pumps and tanks. Stainless steel: AISI 316 Ti AISI 321 or other high-alloy steels Other metals: Aluminium Plastics: Polyester resins (e.g., glass-fibre reinforced tanks made from Palatal®) Hoses made from polyethylene or polytetrafluoroethylene can be used to meter Afranil F Liquid.

Properties

Product specification ^{1) 2)}	Colour (APHA), EN 1557, 23 °C pH, EN 1262, Solution B Viscosity, DIN 51562, 50 °C Water content, DIN 51777, Part 1	max. 40 approx. 6.6 approx. 77 mm ² /s max. 0.3 %
Other properties ¹⁾	Density Setting point Boiling point Flammability	approx. 980 kg/m ³ < -20 °C > 200 °C Not flammable

¹⁾ The above figures are approximate.

²⁾ A detailed specification is available on request.

Application

Afranil F Liquid is an effective, versatile stock deaerator and defoamer which is very easy to meter into the stock. It can be used to treat stock prepared from all types of furnish in the production of all types of paper and board. It is particularly effective in very slow-draining stock.

It can also be used in pulping processes for groundwood and sulphite pulp. Mechanical thickeners can only perform effectively if the pulp is free of entrained air.

Afranil F Liquid can be added directly by means of a pump or a drip feed. If the metering line is very long, we would recommend diluting the defoamer in advance in a Lusap® mixer situated just upstream of the pump.

Stock solutions can be prepared by diluting Afranil F Liquid with water, but they need to be stirred gently from time to time to prevent them from creaming. Solutions can also be prepared on a continuous basis by diluting Afranil F Liquid in a Lusap mixer.

If Afranil F Liquid is added undiluted, it should be added at the point of maximum turbulence, such as just below the wire. Dilute solutions can be added at a point in the system at which the flow is less turbulent.

As little as 0.01 – 0.02 Afranil F Liquid, expressed as a proportion of the stock, is sufficient to deaerate the stock and to disperse any foam on the surface. It gives rise to a large reduction in entrained air and surface foam, with the result that the stock drains more evenly on the wire, there is less variation in formation, and higher quality paper can be produced.

Afranil F Liquid inhibits soil flotation, which prevents the disruption caused by soil drying out and forming deposits. It also inhibits incrustation in white water chests and prevents suspended soil from forming deposits in sedimentation basins. The pronounced deaerating action of this product ensures that no air is entrained when fines are reclaimed by sedimentation or filtration. This is particularly useful if there is a danger of the savealls becoming overloaded.

Safety

We know of no ill effects that could have resulted from using Afranil F Liquid for the purpose for which it is intended and from processing it in accordance with current practice.

According to our experience and other information at our disposal, Afranil F Liquid does not exert any harmful effects on health, provided that it is used properly, due attention is given to the precautions necessary for handling chemicals, and the information and advice given in our safety data sheet are observed.

Further information on safety is given in the safety data sheet.

Note

The information submitted in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors from the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.