Technical Information

Loxanol® MI 6730

(old : Lupasol® P)

general	Loxanol® MI 6730 is an aqueous solution of a cationic polymer
chemical nature	branched polyethylene imine

Properties

physical form	clear colorless to yellowish liquid
shelf life	Subject to appropriate storage under the usual storage and temperature conditions, our products are durable for at least 1 year.

typical properties (no supply specification)

average molar mass (GPC)	~ 750.000 g/mol
viscosity (ISO 2555, Brookfield)	~ 25.000 mPa·s
concentration (ISO 3251)	~ 50 %
water content (DIN 53715)	~ 50 %
refractive index (DIN 51423, 20°C)	~ 1.452
pH value (DIN 19268, 1% dry in distilled water)	~ 11
density (DIN 51757, 20°C)	~ 1.09 g/cm^3
pour point (ISO 3016)	~ -3 °C
residual ethylene imine	max. 1 ppm

Application

Loxanol® MI 6730 is being used as primer in coating applications, where it does improve adhesion to the substrate. Especially in UV-curing systems, which often exhibit poor adhesion because of volume shrinkage, considerable improvements can be obtained by using Loxanol® MI 6730 as a primer.

It is very effective as an adhesion promoter in multilayer packaging films manufactured by coating, lamination, extrusion coating or coextrusion. Applying Loxanol® MI 6730 in composite films (laminates) allows the use of material combinations that result in improved physical, chemical and mechanical properties and substantially increase the barrier effect.

The following materials are suitable as substrates: cellulose, paper, cellophane, viscose, polyolefins (PP, OPP, BOPP, PE, LDPE, HDPE), polyester (PET), polyamide, halogenated polymers (PVC, PVDC) and metals (eg. aluminum).

recommended concentrations

0.5–1 % depending on the application
The solids content of an aqueous Loxanol® MI 6730 primer solution is between 0.5 and 1%. The water used to prepare it should be low in Ca^{2+} ions. Up to 30 wt% alcohol (methanol, ethanol or isopropanol) can be added to improve drying and wettability. Where films with low surface tension are used, we recommend the addition of 0.5% noninonic surfactant. The primer solution should be applied at a coat weight of 1-5g (of a 1% solution) per square meter.

storage

Loxanol® MI 6730 should be stored in the tightly sealed original containers in cool, dry rooms. High temperatures and direct sunlight can lead to discoloration and the formation of surface films.
In case of solidification because of low temperature storage it can briefly heated up to 80°C preferably under stirring. This has no influence on the performance of the product. Prolonged exposure to atmospheric oxygen can cause discoloration. We therefore recommend storage under an inert atmosphere of nitrogen.

Safety
When handling these products, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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