Lutonal® A 50 approx.50% in ethanol

General	Lutonal® A 50 approx. 50% in ethanol is a polyvinylether resin solution for industrial coating applications.
Key features & benefits	Adhesion promoter on a variety of substrates Increases flexibility of coatings Tackifier
Chemical nature	Polyvinylether resin solution, 50% in ethanol

Properties

Appearance	resin solution

Typical characteristics
(should not be interpreted as specifications)

Non-volatile content	~ 50 %
Viscosity 23 °C Shear rate D=25 s^{-1}	~20000 cps
Iodine color value	≤ 4
Density 20 °C	0.87 g/cm³
Flash point	~9°C
Tg	~ - 30°C
K value (1% solution in tetrahydrofurane)	55-65

Solubility	Soluble in alcohols, esters, ketones, and aliphatic, aromatic, and chlorinated hydrocarbons.
Compatibility	Homogenously miscible with hard resins (modified or unmodified natural resins, Laropal® A 81), cellulose nitrate, Acronal® 4 F, Acronal® 700 L approx. 50% in ethyl acetate, and plasticizers.
Resistance to Acids	Diluted mineral acids and organic acids do not attack the resin. Mineral acids at high concentrations lead to degradation or crosslinking. As with acidic resins, this process may cause reddish brown discoloration.
Resistance to Alkali	The resin is not attacked by alkali.
Fastness to Light	Solutions should be protected from light. Prolonged exposure of Lutonal® A 50 approx.50% in ethanol solutions to light may decrease its viscosity.
Heat Resistance	Prolonged exposure to temperatures above 80°C (176°F) may adversely affect the resin unless a suitable stabilizer has been added.

These typical values should not be interpreted as specifications. Solubility and compatibility should be tested for each individual combination.

Application

Lutonal® A 50 approx.50% in ethanol is a polyvinylether resin solution that is mainly used as plasticizing soft resins for cellulose nitrate coatings. Its soft-resin character also improves adhesion in these coatings.

In addition, it can also be used to manufacture coatings based on natural and synthetic resins (dammar gum, ester resins, lime resins, maleate resins, ketone resins, and phenol-containing rosins).

Lutonal® A 50 approx.50% in ethanol is recommended for applications such as:
- Interior/exterior general industrial metal coating applications
- Interior/exterior plastic component applications

Processing

When manufacturing coatings whose proportion of Lutonal® A 50 approx.50% in ethanol is smaller than that of cellulose nitrate, a genuine gelling agent for cellulose nitrate must be added. On the other hand, in combinations containing a greater share of Lutonal® A 50 approx.50% in ethanol than of cellulose nitrate, no additional plasticizer is needed. The ethanol proportion in the solvent blend should be 25 – 40%. The proportion of low-volatile solvents should be kept as small as possible since films would dry slowly and remain tacky.

The viscosity of solutions of Lutonal® A 50 approx.50% in ethanol depends on the solids content as well as on the solvent used. For the same concentration, the viscosity increases in the order: ester → aromatic hydrocarbons → alcohols → chlorinated hydrocarbons.

For further detailed application information please contact our Technical Support Department.

Safety
When handling this product, 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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