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LAROPAL A 81

Laropal A is a family of urea-aldehyde resins, which presents some characteristics that are similar to those of Regalrez:

- **low viscosity** which gives them an excellent leveling capacity, and therefore elevated lustre.
- **elevated resistance to yellowing**
- **low polarity**, both initially and after accelerated aging, which permits their dissolution in non-aromatic hydrocarbons (ligroin or dearomatized white spirit)

It is useful to remember that these resins are slightly more polar at the beginning in respect to the previously cited hydrocarbonic resins, since they already contain oxygen and nitrogen atoms. Their application is excellent as a binder for pigments, for their **superior wetting capacity**, but they are also used as varnishes.

Laropal A 81 has demonstrated itself to be particularly resistant among these resins, and recent studies have also demonstrated the efficiency of Tinuvin 292 in its stabilization.
Applied in thin films and underposed to accelerated aging (3000 hours simulating sunlight that passes through window glass, UV rays included), Laropal A 81 conserved the capacity of melting in a mixture with 90% of cyclohexane and only 10% of aromatics (in corrispondence with the mixture n°2 in the scale of the Feller test, which as we remember, ranges from a minimum polarity of only cyclohexane to a maximim polarity of only acetone).
To parallel a product already utilized as a binder for pigments and as a varnish, the ketonic resin Laropal K80 after an analogous aging results removable only with a mixture of 70% acetone/30% toluene (between the mixtures n°10 and n°11 of the Feller test).
In addition to these positive characteristics, we must consider a high glass transition temperature (Tg = 49°C) as well as a high softening temperature (80-95°C).
The solubility with aliphatic solvents can be limited only under 15°C. In the case where the use of Laropal A 81 will be used in cold environments, the addition of 2-5% aromatics (xylene or toluene) is advised.
It is soluble in almost all polar solvents, like acetone, butyl acetate, ethyl and isopropyl alcohol and Solvanol. It is insoluble in water.

PACK SIZE

Laropal A 81 1 kg

Bibliography

- de la Rie E.R.; Shedrinsky A.M.; “The chemistry of chetone resins and the synthesis of a derivative with increased stability and flexibility” Studies in Conservation 34 (1989), 9-19.
- de la Rie E.R.; Quillen Lomax S.; Palmer M.; Maines C.A. “An investigation of the photochemical stability of films of the urea-aldehyde resins Laropal A81 and Laropal A 101”; ICOM Committee for Conservation (2002), Vol.II, 881-887.

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