

# Phenolic Resin 942

## Characteristics:

Oil reactive and oil soluble alkyl phenolic resin, very pale, little yellowing, can be boiled with raw tung oil at 240°C, promotes through-drying.

Most important application: weather and chemical resistant special oil varnishes, preferably based on tung oil, boat varnishes, electrical insulating varnishes and for modification of alkyd resin varnishes.

## Solubility:

Soluble in: aliphatic and aromatic hydrocarbons, esters, ketones, higher alcohols and varnish oils.

Insoluble in: Lower alcohols.

General Properties Constants:	
Supplied as solid resin in pieces	
Melting range (cap. meth.)	60~66°C
Colour value	<5
Acid value	practically neutral

## Compatibility With Other Varnish Raw Materials:

Phenolic resin 942 is compatible with numerous varnish raw materials, such as: tung oil, oiticica oil, dehydrated castor oil, linseed oil and other varnish oils or the corresponding standoils, also with all Alkyd Resin, Albertol, Alresat, Durophen and Resamin types.

Its compatibility is limited with: Alpex 450 J and Duroxyn 504 W.

## Processing:

For the cooking of Phenolic Resin 942 with tung oil or similar oils it is recommended to prepare a mixture of 1 part by weight of Phenolic Resin 942 to 2 – 3 parts of oil. If less oil is used the bath could possibly gelatinize. Phenolic Resin 942 is dissolved in the raw tung oil at 150°C, the mixture further heated up to 230 – 240°C, being careful of foam formation, and kept at this temperature until desired consistency is obtained.

## Application:

Phenolic Resin 942 is used preferably for manufacturing high-class tung oil varnishes for various purposes. Pure tung oil varnishes are used for air-drying, chemical resistance finishes. They are also suitable for improving the quality of cheap oil varnishes and modifying alkyd varnishes, in which latter case, however direct cooking of the alkyd resin, the tung oil, and the 942 together is preferred.

In spite of the fact that varnishes based on tung oil alone show satisfactory weather resistance, in order to attain highest requirements, especially in the case of air-drying varnishes and universal boat varnishes, it is advisable to increase the oil – length by addition of bodied linseed or dehydrated castor oil.

Phenolic Resin 942 in combination with tung oil and other oil or with alkyd resin is also suited for varnishes, used in special paint, such as paints for buoys, paints resistance to tropical climate, for electrical insulating varnishes, stoving finishes on metal, alkali resistance floor varnishes and adhesive primers. Such combinations are also important as vehicles in printing inks.