



## Technical Data Sheet

### POLYTRADE

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# Respin RLP

Resin

## PRODUCT DESCRIPTION

RESPIN RLP is a natural thermoplastic resin derived from *araucaria angustifolia* Pine tree by the alcoholic extraction of its special resinous parts.

## SPECIFICATIONS

Acid Index, ASTM D-465 (mg KOH/g)	2 – 5
Softening Point, ASTM E-28 (B&R °C)	85 – 100
Volatiles at 120°C, ASTM D-889 (%)	Max. 3
pH in ethanol solution, ASTM E-70	4.5 – 6.5

## APPLICATIONS

The dosage of Respin RLP necessary in order to obtain good results will vary depending on the application. Users of our products shall make their own tests to determine the suitability of each product for their particular purposes. We suggest that trial mixes be conducted in order to determine the necessary dosage to obtain the required result in the application.

### Flexographic Inks:

RESPIN RLP is a raw material for the production of alcohol based flexographic inks, rendering good gloss, flexibility, prompt drying and adherence. Basic Formulation:

Product	Weight %
Respin RLP	30-40%
Dye/Pigment	1 -10%
Ethanol	Enough to 100%

### Fireworks:

The alcoholic solution of RESPIN RLP can be used in the impregnation of paper used in the production of fireworks protecting against moisture; as a binder that hold the mixture together and helps produce a nice color. Basic Formulation:

Product	Weight – kg	Weight – lb
Respin RLP	15,00 kg	33.07 lb
Ethanol	40,00 kg	88.18 lb
Potassium Chlorate	25,00 kg	55.12 lb
Sulfur	9,60 kg	21.16 lb
Iron Oxide (Powder)	2,50 kg	5.51 lb
Plaster (gypsum)	2,00 kg	4.41 lb
Lithopone	1,00 kg	2.20 lb
Infusory Earth	0,50 kg	1.10 lb

## SOLUBILITY

Soluble in: ethanol, methanol, acetone, esters.  
Insoluble in: aliphatic, aromatic and water.

## PACKAGING

Plastic bags of 25 kg – 55 lb. We recommend storage in dry and fresh places.

## PRODUCT SAFETY

Read first our Material Safety Data Sheet (MSDS).

## COMPLEMENTARY INFORMATION

### Mirrors:

Used as a fixing and protection varnish for the layer of Silver Nitrate in the production of mirrors.

### Capping Cement for Lamps:

RESPIN RLP is used for the capping cement in the connection of the lamp bulb as a phenolic resin plasticizer. Basic Formulation:

Product	Weight %
Respin RLP	3.0%
Ethanol	20.0%
Phenolic Resin	3.0%
Fillers (Sand, lithopone, and stones)	73.0%
Malachite and/or Hexamethyl-tetra-amine.	1.0%

### Polish for Wooden Surfaces:

Basic Formulations:  
19% Respin RLP, 10% methyl-cetone peroxide, 5% Carbowaxy 5243, 65% Ethanol and 1% fragrance.

### Furniture:

RESPIN RLP can be used combined with the Indian shellac gum improving the quality of the varnish coating in relation to gloss and time of drying. It can also be used combined with synthetic resins, mainly those produced from colophony, nitrocellulose and P.V.A.

Basic Formulations:

40% Respin RLP, Ethanol 60%



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### Resin

**Table 1** - Formulation for foundry paints.

Product	Zirconite Paint (Weight %)	Graphite Paint (Weight %)	Magnesite Paint (Weight %)
Respin RLP 40 solids	4.0	9.5	9.0
Zirconite	61	-	-
Graphite	-	9.5	-
Graphite 90 – 200	-	14	-
Magneite	-	-	65
Bentone 34 (tixotropic)	-	-	1.4
Talc	10.0	7.0	4.0
Quartz	10.0	25.0	-
Balcay Clay	-	15	1.7
Balcay Bentonite	2.0	-	-
Ethanol	8.0	17.5	3.4
Isobutanol	-	-	3.5
Water	5.0	2.5	12.0

Note: First dissolve the Respin RLP in ethanol at a 40% solids content

### PROCEDURE

Introduce fillers into a "Planetary" type mixing unit with stirring. Add the refractory material, the resin at 40% concentration in alcohol solution, and the solvent. After one hour unload the mixture, which will be in a paste form and ready for use.

Dissolve the paste in ethanol in order to achieve the right consistency according to the application tool: pistol gum, brush, or other. A well homogenized mixture leads to good dissolution in ethanol. When molten metal is poured the resin and solvent disappear in refractory material and filler adheres to the mould.