

# TECHNICAL INFORMATION

## Perapret® PU New liq

### Introduction

Binder for the finishing of textiles and Archroma's Color Fast Finish

## 1. Properties

Appearance	White, aqueous dispersion
Chemical character	Polyurethane dispersion
Ionic character	Anionic
Dilutability	Miscible with cold water in all proportions
Compatibility with	<p>With the exception of cationic products and strongly acid catalysts, Perapret® PU New liq can be used together with all the usual finishing agents. If several products are to be mixed together, their compatibility should first be tested.</p> <p>Imerol® Wash JET-B liq c<sup>2</sup> stabilizes the finishing liquor.</p>
Storage stability	<p>Perapret® PU New liq can be stored in the original sealed containers at temperatures between 5 °C and 30 °C for at least 6 months. Opened containers should be used up as soon as possible and should be properly resealed after use.</p>
Eco-toxicological data	<p>See Safety Data Sheet</p> <p>The product property data merely provides an indication of how the product is to be used. They do not constitute the agreed quality of the product, nor are they the object of regular quality control tests.</p>

Perapret® PU New liq is free from Formaldehyde and organotin compounds.

## 2. Application properties

### Application areas

- Finishing without or with pigments (Archroma's Color Fast Finish) of woven and knitwear composed of cotton and its blends with synthetic fibers.
- Suitable for embossed, schreiner and chintz finishes.

### Finishing without pigments

**Perapret® PU New liq** can be used alone or in combination with other products.

### Finishing effect

- Improves the tear strength, tensile strength and abrasion resistance
- When applied in resin finishing, **Perapret® PU New liq** reduces the tendency to creasing.
- Reduces the tendency to pilling of woven and knitted fabrics
- Improves the resilience and shape recovery
- Larger application amounts produce a fuller fabric handle.
- Good fastness to washing and dry cleaning

## 3. Application

### Application conditions

**Perapret® PU New liq** is applied by a padding operation at room temperature. The liquor pick up depends on the fabric but should lie between 60 – 90 %.

### Application rate

20– 100 g/l **Perapret® PU New liq**

Drying and curing is usually in the temperature range of 120 °C – 175 °C.

### Guideline recipe (indications)      Woven cotton

#### Low formaldehyde finishing

1 – 2	g/l	Imerol® JET-B liq c
20 – 100	g/l	<b>Perapret® PU New liq</b>
30 – 50	g/l	Fixapret® ECO liq c
20 – 30	g/l	Solusoft® SIH liq
8 – 10	g/l	Magnesium chloride crystals.

Liquor pick up: 70 %

Drying: as normal

Curing: 45 s at 170 °C

#### Chintz finishing

2	g/l	Imerol® JET-B liq c <sup>2</sup>
50 – 100	g/l	<b>Perapret® PU New liq</b>
30 – 60	g/l	Fixapret® ECO liq c
20 – 30	g/l	Solusoft® SIH liq
8 – 12	g/l	Magnesium chloride crystals.

Liquor pick up: 70 %

Drying: 100 °C – 120 °C

Residual moisture: Approx. 10 %

Calendar: 200 – 300 N/mm Curing: 45 s at 170 °C

#### **Archroma's Color Fast Finish**

**Perapret® PU New liq** is recommended as a binder for finishing textiles with Printofix Pigment preparations using Archroma's Color Fast Finish.

#### **Finishing effect**

**Perapret® PU New liq** can be used in combination with Arkophob® XLR liq to obtain deeper shades.

Pale shades with good wash and rub fastness can be achieved with Perapret® FWT liq c.

#### **Application conditions**

**Perapret® PU New liq** is applied at room temperature by a padding operation.

If possible the liquor pick up should not be over 65 %.

#### **Application rate**

60– 100 g/l **Perapret® PU New liq**

#### **Guideline recipe (indications)      Woven cotton**

##### Archroma's Color Fast Finish without resin finishing

2– 3	g/l	Imerol® JET-B liq c
4– 6	g/l	Perapret® PFA liq
20	g/l	Perapret® FA liq
60– 100	g/l	<b>Perapret® PU New liq</b>
3– 50	g/l	Printofix® Pigment preparations
6– 10	g/l	Arkophob® XLR liq

pH value of the liquor: 7  
Liquor pick up: 65%  
Drying: as usual  
Curing: 45 s at 170 °C – 175 °C

Archroma's Color Fast Finish in combination with resin finishing

2 – 3	g/l	Imerol® JET-B liq c
4– 6	g/l	Perapret® PFA liq
20	g/l	Perapret® FA liq
60 – 100	g/l	<b>Perapret® PU New liq</b>
30 – 50	g/l	Fixapret® ECO liq c
8 – 10	g/l	Magnesium chloride crystals
3 – 50	g/l	Printofix® Pigment preparations
6 – 10	g/l	Arkophob® XLR liq

Liquor pick up: 65 %  
Drying: as usual  
Curing: 45 s at 170 °C – 175 °C

**Comments**

**Finishing without and with pigments**

It is recommended that the finishing products are added to the finishing bath prediluted with cold water in the order given above.

Imerol® JET-B liq c has proved to be a very effective, non-foaming wetting agent in resin finishing and in finishing with pigments. It is therefore essential to every finishing recipe.

The pH of the prepared finishing liquor in the presence of a crosslinker (Fixapret® ECO liq c) should be adjusted to 5.0 with acetic acid.

After finishing, dyeings and prints normally retain their rub and wet fastness properties. Only in rare instances do these properties deteriorate. In the production of embossed, schreiner and chintz finishes, the textile material should be dried to a residual moisture content of 6-10 % after impregnation before being embossed or calendered.

The finish is subsequently cured under the conditions specified above.

### **Archroma's Color Fast Finish**

For stability reasons, the temperature of finishing liquors containing pigments should not become warmer than 35 °C.

The liquor must be stirred constantly to prevent the Printofix® pigment preparations from settling out, otherwise uneven dyeings may result.

Arkophob® XLR liq dissolved in water can be kept for only a limited period. It is therefore advisable to use the liquors within four hours.

Adequate curing must be carried out.

It is important to have the lowest possible liquor pick up in order to minimise migration during drying.

Guide rollers should be kept rotating constantly to prevent droplets from forming spots on the fabric which may not be removed.

During drying, we recommend reducing the fan speed in the first two stenter bays, to approx. 900 rpm and setting the temperature to no more than 120 °C.

Perapret® PU New liq tends to dry out and thus to form a film. We generally recommend cleaning the pad and guide rollers immediately after the end of production. Dried deposits on the padding rolls can cause specks on the fabric.

Extended machine downtimes should be avoided. This applies especially when the recipes contain Arkophob® XLR liq. The durability of the dry-cleaning fastness depends on various factors including:

- Degree of curing
- Amount of binder used
- Pigment choice
- Dry leaning additives

Adequate curing is important for good wash and rub fastness. The finished fabric should be stored for two days at room temperature after production before testing the general fastness properties.

In view of the many possible influences caused by the pretreatment, dyeing, printing, finishing and composition of the finishing recipe on the fastness properties, shade, standard of white, strength, 'white cracking' after washing, odour and handle, it is advisable to conduct preliminary, internal plant trials. This applies particularly for white goods and pastel shades, where the standard of white and the shade may be adversely affected.



## Recipe information

Our recipes are for your information only. Because of the large number of possible influences in preliminary production to optimize the amounts and recipes, trials in each case are strongly recommend.

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