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## REAKNITT ZFA PLUS

<b>Character</b>	Crosslinking agent for formaldehyde-free* easy care finishing of cellulose fibres and their blends with synthetics
<b>Chemical Structure</b>	Cyclic urea derivative
<b>Appearance</b>	Yellowish - brown liquid
<b>Ionic Character</b>	-
<b>pH-Value</b>	3.0 – 3.5
<b>Specific Weight at 20 °C</b>	Approx. 1.1
<b>Stabilities</b>	<p>REAKNITT ZFA PLUS can be combined with products which are usually applied in easy care finishing. If several products are blended, we recommend preliminary compatibility tests. Combination with optical brighteners such as TUBOBLANC HV is also possible.</p> <p>The product is highly sensitive to frost; after the impact of temperatures around the freezing point irreversible changes will occur.</p>
<b>Storability</b>	Stored properly in closed original containers, the product will hold for at least 12 months.

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## Properties

REAKNITT ZFA PLUS is applied for easy care finishing of wovens and knits made of cellulose fibres and their blends with synthetics. The performance of the product remains even at low temperature. The following finishing effects are achieved with REAKNITT ZFA PLUS:

- formaldehyde-free
- good wet and dry crease recovery angles
- excellent easy care properties
- softer handle compared with crosslinking agents containing formaldehyde
- low curing temperature, can be used with optical brightened qualities
- less strength loss compared with standard crosslinking agents
- very good stability to hydrolysis
- particularly suitable for the post-cure process
- suitable washing and to dry cleaning
- very good fastness to chlorine
- excellent antipilling effects on CV knits

We recommend carrying out pretrials if the product is applied on whites and on fabrics dyed in pastel shades because of a possible impact on the whiteness degree or on the shade.

## Application Technique

### Diluting Instructions

REAKNITT ZFA PLUS can be diluted with cold water at any ratio.

### Recommendation for Use

REAKNITT ZFA PLUS is usually applied by padding at room temperature. It is important for the effect that the fabric to be treated has homogeneous hydrophilicity and has not been subjected to any finishing treatment beforehand.

#### Application quantities:

CO:	60 - 120 g/l	REAKNITT ZFA PLUS
CV:	80 - 180 g/l	REAKNITT ZFA PLUS
PES / CO:	50 - 100 g/l	REAKNITT ZFA PLUS
PES / CV:	70 - 150 g/l	REAKNITT ZFA PLUS

REAKNITT ZFA PLUS already contains catalyst therefore additional catalyst is not needed.

### Recipe Proposals

#### Blouse and shirt fabrics made of cotton wovens

60 - 120 g/l	REAKNITT ZFA PLUS
10 - 20 g/l	POLYAVIN PEN A
20 - 40 g/l	TUBINGAL SEL
1 - 2 g/l	KOLLASOL HV

Liquor pick-up:	Approx. 70 %
Drying:	usual conditions
Curing:	approx. 2 min at 140 °C (on optical brightened fabrics)
or	
Curing:	30 - 60 sec, 170°C

For embossing, rippling and chintz finishings the articles should be dried after impregnation to a residual moisture of approx. 6 - 10%, then embossed and calendered.

Curing is normally carried out at 150 °C for approx. 3 min.

#### Blouse and shirt fabrics made of viscose wovens

80 - 150 g/l	REAKNITT ZFA PLUS
10 - 20 g/l	POLYAVIN PEN A
20 - 40 g/l	TUBINGAL SEL
1 - 2 g/l	KOLLASOL HV

Liquor pick-up:	Approx. 70 %
Drying:	usual conditions
Curing:	2 min, 140°C (on optical brightened fabrics)
or	
Curing:	approx. 30 - 45 sec at 170 - 175°C

Upper wear made of cotton knits

60 - 120 g/l	REAKNITT ZFA PLUS
10 - 20 g/l	POLYAVIN PEN A
10 - 20 g/l	TUBINGAL WES
20 - 40 g/l	TUBINGAL SEL
1 - 2 g/l	KOLLASOL HV
Liquor pick-up:	Approx. 70 %
Drying:	usual conditions
Curing:	2 min, 140°C (on optical brightened fabrics)
or	
Curing:	approx. 30 - 60 sec at 170°C

Antipilling finish for viscose knits

80.0 - 100.0 g/l	REAKNITT ZFA PLUS
20.0 - 30.0 g/l	POLYAVIN PEN A
30.0 - 40.0 g/l	ARRISTAN EPD
1.0 - 2.0 g/l	KOLLASOL HV
Liquor pick-up:	Approx. 70 %
Drying:	usual conditions
Curing:	approx. 30 - 45 sec at 170 - 175°C

Drying / Fixing process can be applied in one step under suitable ram conditions We recommend pre-trials considering the structure of the fabric.

Depending on the application amounts and fabric structure, there may be a certain amount of strength loss in resin finishing fabrics. Therefore, pre-tests should be done to determine the loss of strength in advance and the strength of the fabric without finishing should be as high as possible. We recommend low temperature fixation on fabrics with strength problems

If the resin finish is to be applied to the optical brightened fabric, it is important that the optical brightener used is suitable for resin finishing and has a wide pH range. Therefore, suitable optical brighteners should be preferred. Since REAKNITT ZFA PLUS can be fixed at low temperatures, we recommend to carry out fixing at low temperatures.

\* To us formaldehyde-free means that all recipe components neither contain nor release formaldehyde during production or processing.

**We reserve the right to modify the product and technical leaflet.**

**Our department for applied technique is always at your service for further information and advice.**

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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