

## TECHNICAL INFORMATION

### Arkophob® DAN New liq

**Arkophob DAN New liquid** is a special, stabilized formaldehyde-free crosslinking agent, used to improve the efficiency of waterborne polymer dispersions and fluorocarbon emulsions (Nuva®).

- Considerably improves the resistance of oil and water repellent effects of our Nuva® products to washing and dry cleaning.
- Reduces tackiness and improves the durability of our Appretan® dispersions in pad application and in coating and lamination.
- Especially in case of polyurethane based products the durability and the abrasion and wash resistance can be further improved.
- Applied before lamination it improves adhesion of the coating.
- **Arkophob® DAN New liq** does not contain PFC, PFOA, PFOS, APEO or organotin.

## 1 Properties

- Appearance white to slightly pink dispersion
- Chemical character aqueous dispersion of a modified polyurethane
- Ionic character nonionic
- Density at 20°C ca. 1 g/cm<sup>3</sup>
- pH ( 5% dilution) 5.0 +/- 1.0
- Dilutability by pouring over cold water in any proportion
- Storage stability 6 months at temperatures of 0°C – max. 40°C  
The product is not sensitive to frost
- Stability to
  - hard water good at the usual amounts applied in treatment baths
  - weak acids good
  - weak alkalis good
- Compatibility with
  - nonionic products good
  - anionic products good
  - cationic products good
- Influence on dyeings and degree of whiteness slights shifts of shade are possible
- Thermomigration The product itself has only slight influence.  
Depending on the type of dye, amount applied and curing time and temperature the rubbing fastness may be affected slightly. Pretrials are recommended.
- Toxicological and ecological data see Safety Data Sheet.

## 2 Application recommendation

**Arkophob DAN New liq** is applied by the padding process.

Arkophob DAN New liq is diluted with cold water at least 1:1 and then added to the finishing bath. In lamination pastes the product is added undiluted.

Arkophob DAN New liq requires the following conditions for curing:

150 - 160°C      4 – 3 minutes  
170 - 180°C      40 – 20 seconds

Depending on the purpose the application amount is 5 – 20 g/l or about 10 - 20% of the whole formulation.

Higher amounts can lead to hardening of the handle and impairment of the shade. Pretrials are recommended.

## 3 Application (sample recipe)

Improvement of the washfastness of Nuva products :

PES/CO or 100% Cotton :

1	ml/l	acetic acid 60%
30 – 50	g/l	Nuva N2155 liq
5 – 10	g/l	<b>Arkophob DAN New liq</b>

- pad at 50-70% pickup
- dry
- cure 2-4 minutes at 150-160°C or
- 20 sec at 175-180°C

100% PES :

0.2	ml/l	acetic acid 60%
10 – 40	g/l	Nuva N2155 liq
2 – 5	g/l	<b>Arkophob DAN New liq</b>

- pad at 50-70% pickup
- dry
- 40-20 sec at 170-180°C

Improvement of the washfastness of Arkophob 2150 liq :

PES/CO or 100% Cotton :

1	ml/l	acetic acid 60 %
100	g/l	Arkophob 2150 liq
20	g/l	<b>Arkophob DAN New liq</b>
0 – 10	g/l	Ceralube PHD liq c

- pad at 50-70% pickup
- dry
- cure 4-3 minutes at 150-160°C or
- 30-20 sec at 175-180°C

Polyester and polyamide articles

60-80	g/l	Arkophob 2150 liq
5-8	g/l	<b>Arkophob DAN New liq</b>
5 – 10	g/l	Ceralube PHD liq c

For best performance on PES the pH of the bath should be around 7

- pad at 50-70% pickup
- dry
- 40-20 sec at 170-180°C

Improvement of the washfastness of Appretan products for coating :

200-400	parts	Appretan
6-20	parts	<b>Arkophob DAN New liq</b>

- coating
- dry
- cure 4-3 minutes at 150-160°C or
- 30-20 sec at 175-180°C

Use in pigment printing:

Comparable to all products of Printofix® Pigment range, advisable to add 10-15 g/kg of Arkophob DAN New liquid together with stock paste a synergy effect of high fastness to dry & wet rubbing and a soft handle.



Product® meets the bluesign®<sup>1</sup> criteria.

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