

[®] PRISULON DCA 90

Characterization	Thickening agent for textile printing
Chemical Structure	Polygalactomannan ether
Supplied Form	Yellowish powder
Ionic Character	Non-ionic
pH Value (60 g/l)	6.0 - 9.0
Stock Concentration	9 %
Stability	PRISULON DCA 90 has an excellent stability to hard water, bivalent and trivalent metal salts, all common printing auxiliaries and chemicals used for burn-out and discharge printing. Coagulates in alkaline medium in the presence of borates.
Storage	In a cool and dry place in well-closed, original containers. If the product is stored at temperatures exceeding 30 °C or in case of long storage times, an irreversible decrease in viscosity may occur. We recommend not to exceed a storage time of 12 months.

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

Properties

Filterability

Stock thickenings of PRISULON DCA 90 are free from insoluble parts and easy to strain.

Rheology

Owing to the ideal flow properties, even extremely high printing speeds do not present a problem with respect to paste transfer onto the fabric from engraved rollers or through extremely fine screens. The printing pastes give good penetration on all printing units coupled with best running properties and a perfect print levelness.

Colour Yield

Dye transfer from the printing paste onto the textile is good. Colour shades are not affected. Blending of the thickener with starch derivatives augments the colour yield.

® = registered trade mark

Pattern Definition

Gives optimum sharpness of outlines even in wet-on-wet fall-ons. On hydrophobic substrates, a higher print paste viscosity usually gives better results.

Properties of Thickener Film / Ease of Removal

The dry thickener films are soft and flexible; they do not harden, break off or rub off when fixed in HT-steam conditions or in a thermosol process. They are easy to remove in a normal wash-off process.

Preservation

PRISULON DCA 90 contains preservative. The stability of the stock thickenings is good. If a longer stability is required, under special working conditions or adverse climatic influences, it is advisable to use additionally one of the common preserving agents. Tests for dyestuff compatibility should be carried out following the recommendations of the dyestuff manufacturers.

Application Procedure

Preparation of Stock Thickening

91 % water
9 % PRISULON DCA 90
<hr/>
100 % stock thickening

- Prepare cold or warm water
- Sprinkle in PRISULON DCA 90 at a fast but controlled rate with constant stirring. It is also possible to dissolve PRISULON DCA 90 by the pre-dispersion method in the 1 to 1½ fold amount of a low, water-miscible alcohol or white spirit or in an automatic preparation process of the injector system type.
- Continue stirring for 10 - 20 minutes;
- Maximum viscosity is attained after 60 - 120 min. depending on the water temperature and the effectiveness of the stirrer;
- After briefly stirring the stock up again it is sufficiently homogeneous and ready for use;
- Never add powder to completely swollen stocks. Ready-to-use stocks or print pastes can be thickened by the pre-dispersion method.

Textile Substrates

As a multifibre thickening agent for textile printing, PRISULON DCA 90 is suitable for woven and knitted materials made of natural fibres as well as for substrates of synthetic staple and filament fibres. It is also appropriate for wool and silk including their blends.

Dyestuff Classes / Printing Process

Owing to its excellent stability to chemicals, PRISULON DCA 90 can be used with all dyestuff classes (with the exception of reactive dyes and naphtholates) for direct, resist, discharge and burn-out printing.

Recommendation for Use

If necessary, PRISULON DCA 90 can be mixed in any ratio with all common thickening agents, except with crystal gum and Gum Arabic. For augmenting the colour yield, the product should be blended with starch derivatives. The following blends have proved advantageous:

For vat dyestuffs

4- 6 % PRISULON DCA 90
6- 4 % PRISULON CMS 10
90 % water

100 % stock thickening

For synthetic fibres

5- 7 % PRISULON DCA 90
5- 3 % PRISULON CMS 10
90 % water

100 % stock thickening

The printing pastes are prepared according to the usual formulations.

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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