®PRINTPERFEKT BLANC FLEX

Characterization	Ready for printing, hot curing white paste on aqueous base; for highly covering white prints or pastel-coloured prints on dark, elastic textile qualities
Chemical Structure	White pigmented, basic paste; compound of synthetic dispersions, thickener and additives, free from white spirit and phthalates
Supplied Form	White, highly viscous paste
Ionic Character	Anionic
pH Value	7.6 – 9.5
Viscosity	18,000 - 26,250 mPas (Brookfield RVT 20/6)
Storage	If stored properly in a cool place between + 5 °C and + 25 °C in closed original containers, the product will be stable for about 12 months. Protect from frost and excessive heat. Opened containers must be closed again tightly.

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

Processing / Fixation

PRINTPERFEKT BLANC FLEX is ready for printing and is normally used directly as a covering white paste. For pastel-coloured prints PRINTPERFEKT BLANC FLEX can be coloured with pigments, e.g. COLORMATCH dyestuffs. When being mixed with other white pastes, PRINTPERFEKT BLANC FLEX increases the flexibility .

If very high demands are made on the fastness properties or if critical fabric qualities have to be printed, it is possible to add a fixing agent to the print pastes which, however, may possibly decrease the flexibility.

We recommend stirring up PRINTPERFEKT BLANC FLEX prior to use; colour additions or combinations with adhesive dispersions are to be homogeneously blended with the basic paste by means of suitable stirring units.

The fixation of the prints is usually effected by means of dry heat in the range of 130 °C - 160 °C. For special demands with a reduced fixing temperature or reduced fixation time, TUBASSIST FIX 104 W can be used as a special low temperature crosslinking agent after preliminary trials .

® = registered trade mark

Film Properties / Handle

Despite its good covering properties PRINTPERFEKT BLANC FLEX results in very soft and flexible white print effects, especially on stretchable knits and elastic fabric qualities.

Printing Properties / Fastnesses / Further Properties

PRINTPERFEKT BLANC FLEX can be well processed with common screen printing methods. The best possible covering properties and an excellent degree of whiteness are achieved by printing in the last position.

White prints with PRINTPERFEKT BLANC FLEX produce brilliant, well covering white effects with a very good fastness level and stand out for their high flexibility on elastic fabric qualities. The adhesive power is also excellent on many textile qualities which are hard to wet such as closely woven fabrics for leisure wear.

Application Procedure

Application Fields

PRINTPERFEKT BLANC FLEX is mainly used for covering white prints on dark, stretchable knits and flexible elastic materials. In screen printing on closely woven fabrics, e.g. leisure wear, PRINTPERFEKT BLANC FLEX mostly shows a very good wetting and adhesion to the fabric.

Recommendation for Use / Processing

Material Structure / Substrates

PRINTPERFEKT BLANC FLEX can be applied on a multitude of nowadays common textile qualities, preferably on elastic textile qualities.

In order to achieve good printing effects with a high fastness level, the substrates have to be dry, clean and possibly free from auxiliary rests or preparation add-ons. We generally recommend checking the suitability of the materials in preliminary tests, especially in case of impregnated or heat-sensitive textiles or dyed qualities (e.g. thermal migration of disperse dyestuffs).
In most cases a reduction of the fixing temperature and a correspondingly prolonged fixing time can improve this situation; if necessary, the fixing temperature may be additionally decreased by means of a special low temperature crosslinking fixing agent.

Additives and Auxiliaries

TUBASSIST FIX 120 W

With the addition of 5 – 8 % TUBASSIST FIX 120 W at fixation temperatures of 120 – 150 °C a good washfastness without formaldehyde impact can be achieved. The fixing agent ought to be only added immediately prior to processing. Blended print pastes must be used up within two working days. The fixing agent would otherwise react without increasing the paste viscosity and would no longer be effective.

TUBASSIST FIX 104 W

With the addition of 1 - 2 % TUBASSIST FIX 104 W a good washfastness can already be achieved at drying temperatures of clearly below 120 °C. The fixing agent ought to be only added immediately prior to processing. Blended print pastes must be used up within half a working day (2 - 4 hours) since the addition of the fixing agent leads to a strong increase in the print paste viscosity.

COLORMATCH Colour Pigments

For the production of pastel-coloured matt prints we recommend adding 0.1 – 5.0 % COLORMATCH pigments. Due to the high white pigmentation of PRINTPERFEKT BLANC FLEX it is not possible to produce brilliant and deep shades.

TUBIPRINT RETARDER

2.0 – 5.0 % of this retarder may be added to reduce the drying speed in the printing screens and at the same time to improve the printing properties. High concentrations may slow down the drying and fixation process which may then have to be adjusted.

Diluting / Thickening

In general not necessary; if need be, the viscosity can be lowered by adding some water (up to 10 %). The viscosity can be increased by homogeneously stirring in 0.1 - 0.5 % TUBIVIS DL 650.

Cleaning of Working Utensils

Immediately with cold water. On prolonged stoppages during printing the screens must be kept moist or cleaned intermediately. Slightly dried-in paste rests or colour tintings on the screen lacquer can be softened with a suitable household detergent (e.g. dishwashing soap); cured paste rests can only be removed mechanically. We recommend checking the stability of the screen layers to the detergents in use with preliminary trials.

Printing Process

Application by means of all common screen printing methods with polyester monofilament screens of 26 - 55 threads/cm, preferably 30 - 40 threads/cm, depending on the design and the fabric quality.

The best possible covering power and highest whiteness degree are achieved by printing in the last position.

Drying / Fixation

May be carried out in one or in separate steps. For achieving maximum fastness properties the print pastes need to be cured by means of a heat treatment.

Water steam arising at the drying and fixation stage must be drawn off continuously by an adequate ventilation. By doing so an insufficient fixation of the print pastes due to humidity accumulation in the drying and fixing zone is avoided.

Recommended conditions for drying + hot air fixation

	in the drying chamber	in the continuous drier
One step	130 - 150 °C, 20 - 5 min	140 - 160 °C, 6 - 3 min

Two step

Drying
80 - 120 °C, 10 - 5 min, possibly room temperature drying after pre-trials

Fixation
130 - 160 °C, 10 - 3 min

When fixing with radiant heat or other sources of energy, it is essential to run meaningful trials prior to goting into production.

Recommendation for Use

Before going into production we urgently recommend carrying out pre-trials in order to test the suitability of the print pastes for the substrates to be used with regard to wetting, adhesion, fastness properties, heat stability and processing parameters and controlling everything as well during the production run.

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.

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