

Texacool TXC



Screen printing ink for textiles made of natural and synthetic fibres

Cold-fixing 2-component textile ink for direct printing onto textiles, can be thinned with water, resistant to washing, limited resistance to dry-cleaning

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Field of Application

Substrates

Textiles made of cotton and other natural fibres as well as mixed fibres not consisting more than 50 % of synthetic fibres.

Any water absorbent finish on the textile also has an absorbing effect to the printed ink film. The print will therefore not adhere on such a finish. If such a textile still needs to be printed, to obtain the best possible ink adhesion on the textile.

If it is to print onto textiles having a water-repellent (hydrophobic) finish/impregnation, you must reckon with a reduced adhesion of the ink. For improved adhesion properties, the finish must be removed prior to printing

Since all the print substrates mentioned may be individually different in printability as well as in quality according to the manufacturer, preliminary trials are essential to determine suitability for the intended use.

Field of use

Texacool TXC is mainly used if a thermal fixation (e. g. at 150°C) of the ink after the printing process is not possible. The printing ink is directly applied onto the substrate without any snap-off of the screen.

TXC can also be used in ,wet-on-wet' printing on absorbent materials.

Characteristics

Pot-life (Processing time)

For a subsequent chemical cross-linking, it is to add some Hardener TXCH to the ink prior to printing and to stir homogeneously.

Mixing ratio (parts of weight):

10 parts TXC : 3 parts Hardener TXCH

Pot life of this mixture is 1 to 3 days if the storing temperature does not exceed 25°C. Increased temperatures will reduce pot life when processing the ink.

If the ink's viscosity is too high after having added the hardener, it can be adjusted by adding a maximum of 10% water.

Drying/Hardening

According to the absorptive characteristics of substrate and printed design, the drying time will be about 5-30 minutes at 22°C. These drying times can be reduced accordingly by using a IR dryer or hot air dryer.

The final hardness will be achieved at room temperature (20-25°C, humidity < 60%) after 4 to 6 days. Chemical cross-linking will take place only after physical drying.

If the air humidity in the printing area is too high (insufficient ventilation) or if the print has not been completely cured and packed hermetically, cross-linking will not be complete and the resistances will not achieve their best possible values.

Texacool TXC



The hardening process can be accelerated with heat (80° C) and will then be completed after 10 minutes. Please avoid temperatures of more than 80° C.

This forced type of drying might be interesting for production-related reasons, i.e. if there is an insufficient thermal fixation of 1-component textile inks, e. g. at very high production speed.

Fade resistance

Pigments of good fade resistance are used for the production of Texacool TXC.

If shades are mixed with bronze binder or other colour shades, especially with white, fade and weather resistance will mostly be reduced. A reduction may also occur if the density of the printed ink film decreases.

Stress resistance

After proper and thorough drying, the prints are flexible and resistant to washing up to 40°C. On natural fibres, there is a limited resistance to dry cleaning.

Range

Basic shades

TXC 020 Lemon	TXC 057 Brilliant Blue
TXC 021 Medium Yell.	TXC 059 Royal Blue
TXC 023 Orange	TXC 062 Medium Green
TXC 032 Carmine Red	TXC 068 Brilliant Green
TXC 036 Vermilion	TXC 073 Black
TXC 045 Dark Brown	TXC 170 Opaque White

All shades are intermixable. Mixing with other ink types should be avoided in order to maintain the special characteristics of this outstanding ink range.

Auxiliaries

Bronze Binder:	TXC 902
Hardener:	TXCH
Thinner:	water
Cleaner:	water or Cleaner UR 3

Cleaning

Cleaning of screens and machines with water is generally only possible as long as the ink has not dried. If already dry, we recommend to use our Cleaner UR 3.

Fabrics and stencils

We recommend a polyester fabric with 36-48 threads/cm. Differing mesh sizes can be used according to the print motif, nature as well as colouring of the substrate. Especially for thin and light-coloured textiles, it is possible to use finer mesh sizes.

All water-resistant products can be used as a material for stencils.

Labelling

For our ink type Texacool TXC, and its additives and auxiliaries, there are current Material Safety Data Sheets according to EC-regulation 91/155 informing in detail about all relevant safety data including the labelling according to the present EEC regulations as to health and safety labelling requirements. Such health and safety data may also be derived from the respective label.

Ink and auxiliaries - with the exception of UR 3 - are not considered as flammable liquids.

Texacool TXC



Shelf life

Both the TXC ink as well as the hardener have a shelf life of one year.

As the ink contains water, it must be protected from frost. Once frozen, the ink cannot be used anymore. We recommend to close tightly any opened can.

Note

Our technical advice whether spoken, written, or through test trials corresponds to our current knowledge to inform about our products and their use. This is not meant as an assurance for certain properties of the products nor their suitability for each application.

You are, therefore, obliged to conduct your own tests with our supplied products to confirm their suitability for the desired process or purpose. The selection and testing of the ink for specific application is exclusively your responsibility.

Should, however, any liability claims arise, such claims shall be limited to the value of the goods delivered by us and utilised by you with respect to any and all damages not caused intentionally or by gross negligence.