

# MNK BIO

Code M190000

## PRODUCT DESCRIPTION

Water based PU inks series from renewable sources.

## APPLICATION RANGE

Direct textile screen-printing on knits and fabrics, pre-cut articles and garments.

## PRINTING PROCEDURE

<b>Substrates</b>	<ul style="list-style-type: none"> <li>Organic Cotton</li> <li>Cotton 100%</li> <li>Cotton/PES</li> </ul>
<b>Th/cm</b>	Max 120 th/cm for BINDER, Max 90 th/cm for WHITE and BASE
<b>Emulsion</b>	<ul style="list-style-type: none"> <li><i>Zero In Astra</i></li> <li><i>Zero In Universal Plus</i></li> </ul>
<b>Squeegee</b>	Square edge; hardness according by the effect
<b>Curing</b>	140°C - 160°C for 3 minutes
<b>Thinner</b>	If necessary, max 3% water
<b>Thickener</b>	If necessary, max 2% <i>Texilac Addensante 162</i>
<b>Pigments</b>	<ul style="list-style-type: none"> <li>Texilac Coloranti (max 5%)</li> <li>Ecotex P Pigmenti (max 5%)</li> </ul>
<b>Retarder</b>	5% <i>Texilac Ritardante</i>
<b>Fixer</b>	If necessary up to 10% <i>Hardener Eco</i> or 5% <i>Ecotex Fix 70</i>
<b>Cleaning</b>	Water or <i>Screenclean ST</i>
<b>Storage</b>	<ul style="list-style-type: none"> <li>Avoid direct sunlight</li> <li>From 15°C to 35°C</li> </ul>
<b>Packaging</b>	5 Kg
<b>MSDS</b>	Available on request

## GENERAL FEATURES

- High Sustainability inks
- From plant-based materials
- Up to 82% of biobased Carbon content\*
- Flexible, not sticky
- Good printability, no blocking in the screen
- Excellent washing resistance
- Free from dangerous substances. Suitable for skin contact printing and baby garments

## PREPARATION

MNK BIO WHITE is ready to use, add *Texilac Coloranti* or *Ecotex P* to obtain pastel shades.

To get bright colours on light coloured fabrics, use MNK BIO BINDER.

Use MNK BIO BASE for brilliant and opaque colours on dark background.

Use up to 3% of water to adjust the viscosity, up to 5% of *Texilac Ritardante* to increase the printability and print using high mesh screens.

Add up to 2% of *Texilac Addensante 162* to increase the thickness.

MNK BIO series has good general fastness, anyway we recommended the addition of the fixer *Hardener Eco* or *Ecotex Fix 70* to print onto synthetic fabrics or to reduce the curing temperature.

When *Hardener Eco* is added, the mixture could be used for about 12 hours before it loses its effectiveness. When *Ecotex Fix 70* is added, the mixture could be used for several weeks.

## APPLICATION

MNK BIO inks are suitable for high mesh screens because their high printability.

To print on elastic fabrics, we suggest to print as underlayer MNK BIO BINDER and then overprint with white and colours. Alternatively add up to 5% of *Texiplast additivo 33*.

Set the squeegee pressure and speed, and the out of contact to maintain the ink layer on the surface to optimize softness and opacity on dark background.

## CURING

The curing must be done at about 140°C - 160°C for three minutes.

Time and temperature of curing must be optimized according the graphics design, the substrates and the required fastness.

MNK BIO series is suitable for different kind of fibers and it allows to obtain excellent fastness using one of the suggested fixer agents.

## SPECIAL RECOMMENDATIONS

- Test always the printing conditions before starting the industrial production.
- Test always the fastness before starting the industrial production.
- Dry accurately every single layer of ink to remove the residual moisture.
- Check the curing conditions: the addition of additives could require higher temperatures or longer time of curing.
- The addition of additives decreases the percentage of material from renewable sources.

## EQUIPMENTS

Suitable for manual and automatic machines.

## PRODUCT RANGE

<b>M190000K005000</b>	<b>MNK BIO BINDER</b>
<b>M190001K005000</b>	<b>MNK BIO WHITE</b>
<b>M190002K005000</b>	<b>MNK BIO BASE</b>

## BIOBASED CARBON CONTENT \*

<b>72% **</b>	<b>MNK BIO BINDER</b>
<b>82% **</b>	<b>MNK BIO WHITE</b>
<b>73% **</b>	<b>MNK BIO BASE</b>
<b>75% **</b>	<b>HARDENER ECO</b>

\* ASTM D6866-20 Method B (AMS)

\*\* as a fraction of total organic Carbon

## IMPORTANT NOTE

The information given in this technical sheet is not intended to be exhaustive and any person, using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us to the suitability of the product for the intended purpose, does so at his own risk.

While we endeavour to ensure that all advice we give about the product is correct, we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product.

Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of the product.

The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.