

# MNK BIO

Code M19000-

## 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.

## APPLICATION PROCESS

Substrates	<ul style="list-style-type: none"> <li>Organic cotton</li> <li>Cotton 100%</li> <li>Cotton/PES</li> </ul>
Th/cm	<ul style="list-style-type: none"> <li>Max 120 th/cm for BINDER, Max 90 th/cm for WHITE and BASE</li> </ul>
Emulsion	<ul style="list-style-type: none"> <li><i>Zero In Astra</i></li> <li><i>Zero In Universal Plus</i></li> </ul>
Squeegee	<ul style="list-style-type: none"> <li>Square edge; hardness according by the effect</li> </ul>
Curing	<ul style="list-style-type: none"> <li>140°C - 160°C for 3/2 minutes</li> </ul>
Auxiliaries	<ul style="list-style-type: none"> <li>See TDS "<b>Auxiliaries for water based inks</b>"</li> </ul>
Pigments	<ul style="list-style-type: none"> <li><b>Ecotex P Pigmenti</b> (max 5%)</li> </ul>
Cleaning	<ul style="list-style-type: none"> <li><i>Screenclean ST</i></li> </ul>
Storage	<ul style="list-style-type: none"> <li>Avoid direct sunlight</li> <li>From 15°C to 35°C</li> </ul>
Packaging	<ul style="list-style-type: none"> <li>5 Kg</li> </ul>
MSDS	<ul style="list-style-type: none"> <li>Available on request</li> </ul>

## 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 and baby garments printing

## PREPARATION

Ready-to-use ink series.

Mix well before use.

With the addition of ECOTEX P PIGMENTS in MNK BIO BINDER, bright tones are obtained.

To obtain light or pastel colors, MNK BIO WHITE is recommended.

Use MNK BIO BASE to obtain bright and opaque colors.

The MNK BIO series has very high general fastnesses; the addition of fixers is recommended if you wish to print on material of a synthetic nature or need to heat set at low temperatures.

## 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.

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 3/2 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.

## PRODUCT RANGE

M190000K005000	MNK BIO BINDER
M190001K005000	MNK BIO WHITE
M190002K005000	MNK BIO BASE

## BIOBASED CARBON CONTENT \*

72% **	MNK BIO BINDER
82% **	MNK BIO WHITE
73% **	MNK BIO BASE
75% **	HARDENER ECO

\* ASTM D6866-20 Method B (AMS)

\*\* as a fraction of total organic Carbon

## EQUIPMENTS

Suitable for manual and automatic machines.

## 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.

## WARNING

This technical data sheet does not replace either the Safety Data Sheet or the specific Conformity Declaration. These documents may be required to our SHEQ (Product safety office), at the following e-mail address: [safety@eptainks.com](mailto:safety@eptainks.com)

The technical data sheet does not relieve the printer, who remains the only responsible of the respect of the regulations, the specifications and the related required certifications of the finished items.