

# PRINTING ON DARK POLYESTER

## GUIDE



# CONTENTS

REQUIREMENTS.....	3
THE PROCESS .....	4-5
ABOUT THE GTX POLYESTER SOFTWARE.....	7-10
EXAMPLE PRINTS.....	11

# REQUIREMENTS

## a. COMPUTER SPECS

- i. Windows 10 (64 bit only)
- ii. CPU with 2 GHz or above
- iii. RAM with 4 GB or above
- iv. XGA (1024 x 728) or higher

## b. GTX SERIES PRINTER

- i. Must have the following printer driver and firmware or higher
  1. GTX - Driver = Ver.3.20.0001 and  
Firmware = GTX4FIRM3200000.bwf
  2. GTXpro/Pro B - Driver = Ver.1.10.0002 and  
Firmware = GTXpro FIRM\_1.2.bwf or higher
- ii. Special software
  - GTX Polyester conversion software for the GTX series printers. \*

## c. INNOBELLA TEXTILE CHEMISTRY

Only for Innobella Textile Pretreat:

- BGCX40P005K0042
- BGCX40P020K0034
- BGCX40P02HK0034

## d. HEAT PRESS [Pneumatic style recommend]

## e. WASHING MACHINE [to wash garments after printing]

# THE PROCESS

## OVERVIEW

### STEP 1

Create your file using GTX Polyester Software.



### STEP 2

Apply Pretreat in 2 Layers.



### STEP 3

Print as usual.



### STEP 4

Cure Ink with Heat Press



### STEP 5

Wash the Garment.



## LIMITATIONS AND DISCLAIMER

- a. The term 'recommended' in this document refers to the articles and machines used when tested by Brother and does not guarantee that printing on dark polyester is possible by using these. Please test it thoroughly before using.
- b. This method has only been tested for use with the garment brand A4, model 3142. Results can vary when printing on another brand. Test before committing to a specific color or brand of garment.
- c. It is not recommended to print on both sides of the garment due to the transfer of pretreat during the application process, resulting in inconsistent pretreat on the opposite side.
- d. Shirts must be washed in cool/cold water shortly after printing and curing the garment to remove excess ink/pretreatment and to increase washing durability.
- e. Shirts must be air dried or tumble dried on low. High temps could damage the print.

# THE PROCESS

## DETAILS

### STEP 1

#### Create your file using GTX Polyester Software.

1. Open your desired artwork file.
2. Select your printer model from the drop down menu.
3. Click the gear to access the printer driver settings.
  - a. Highlight: The default is '9' (600% white ink). You can select the amount from 400% to 800%. If you are worried about seeing the texture of the fabric than increase the highlight amount to smooth out the printed area.
  - b. Min Whiteness 5 is recommended for smooth polyesters and a Min Whiteness of 2 is recommended for textured/mesh polyester garment.
  - c. If the minimum white ink amount is reduced below the recommended value, the ink may peel off in the dark areas after washing.
4. Click the printer icon to either send directly to the printer or create a print ready file (i.e. ARXP or ARX4)

### STEP 2

#### Apply pretreat in 2 layers

1. Pretreat the desired area with 22 grams of pretreat after your pretreat machine has been calibrated to spray 22 grams of pretreat based on a 14"x16" .
2. Heat press cure the pretreat - 230° F at 47psi (3.2 bars) for 35 seconds.
3. Pretreat the same area again with 22 grams of pretreat.
4. Heat press again - 230° F at 47psi (3.2 bars) for 35 seconds.

## STEP 2

### continued...

**TIP** = Clean off the bottom non-stick cover often and especially when you switch to pretreating a different color garment to prevent cross contamination of the dyes.

**TIP** = Parchment paper is not required when curing the pretreatment. Be sure to clean off the upper cover thoroughly every 5 shirts.

**Precaution** = Do not stack different colored pretreated shirts on top of one another.

**Precaution** = Prior to washing a garment will show a visible pretreat mark on front and or back of apparel on certain colors and or brands.

## STEP 3

### Print the Garment

Dress the garment onto the platen. The printer will lay down 6 layers of white ink and 2 layers of CMYK ink.

## STEP 4

### Cure the Ink

Dress the garment onto the heat press. Cure the ink at 230° F with 47psi (3.2 bars) for 60 seconds. Use silicon-based parchment paper when curing the ink. *The Stahl'sAir Hotronix AirFusion (XRF-TT) is recommended.*

**TIP** = Cracks will appear in the ink after curing if you stretch the shirt onto the heat press before curing the ink.

**Precaution** = Due to pretreatment still being wet, the dye from certain colors could come off on packaging and lighter color blanks. **Washing the garment will prevent this.**

## STEP 5

### Wash the Garment

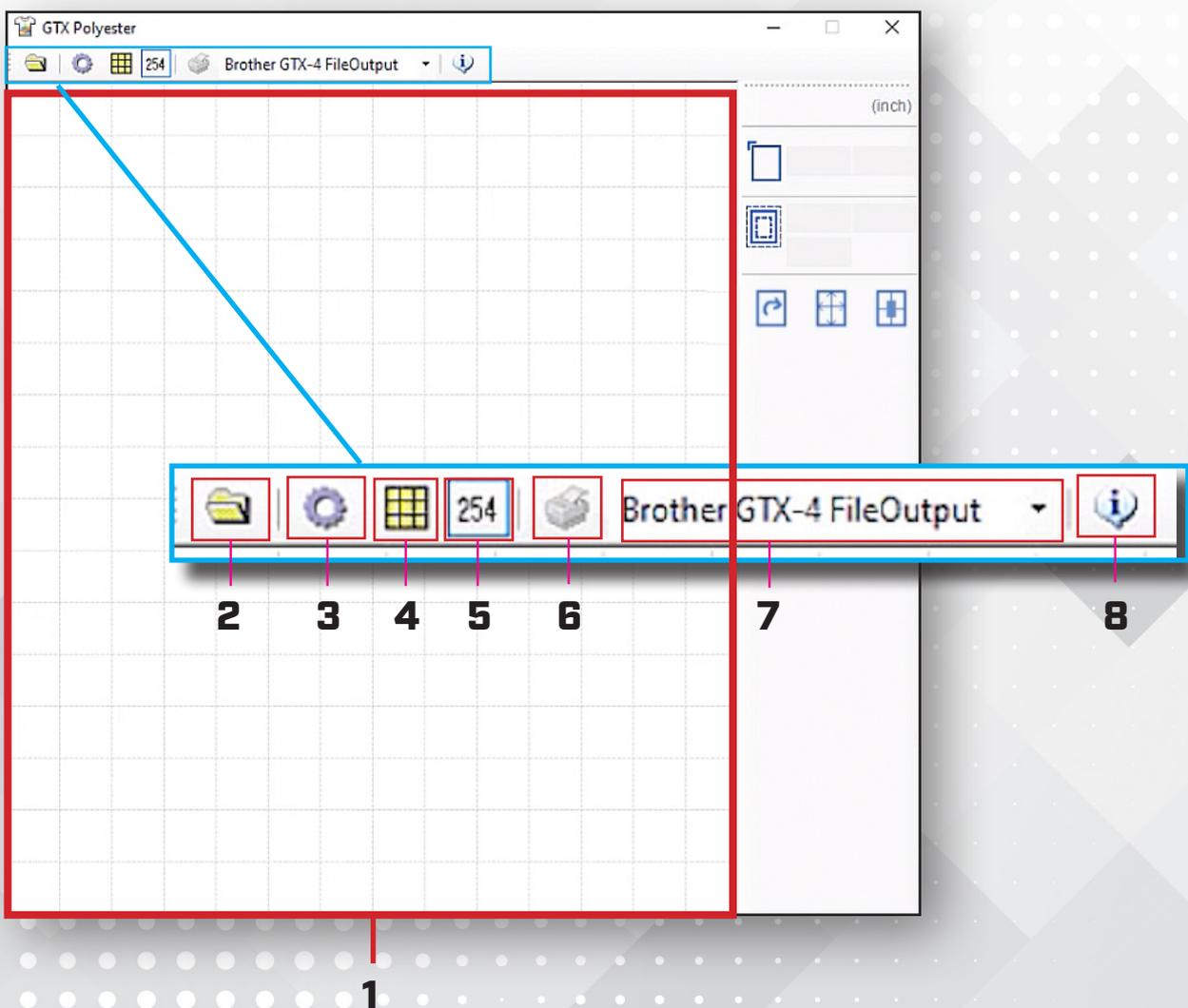
The garments should be washed in cold water, gentle cycle with no detergent and air dry or tumble dry on low.

# GTX POLYESTER SOFTWARE

GTX Polyester is the software application for creating print data for polyester prints on the GTX and GTXpro series of DTG printers. This software is only compatible with 64 Bit Windows. It is not compatible with Mac.

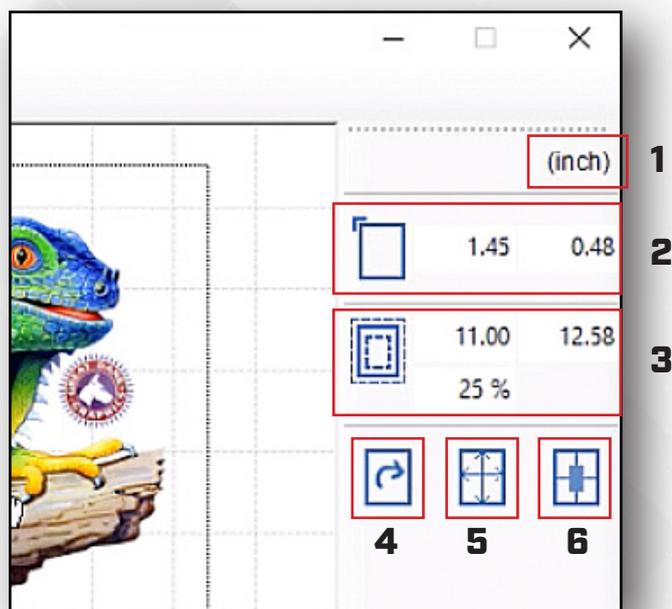
To download the software, visit [BrotherDTG.com/support](http://BrotherDTG.com/support).

For tutorials on GTX Polyester, visit [BrotherAcademy.com](http://BrotherAcademy.com).



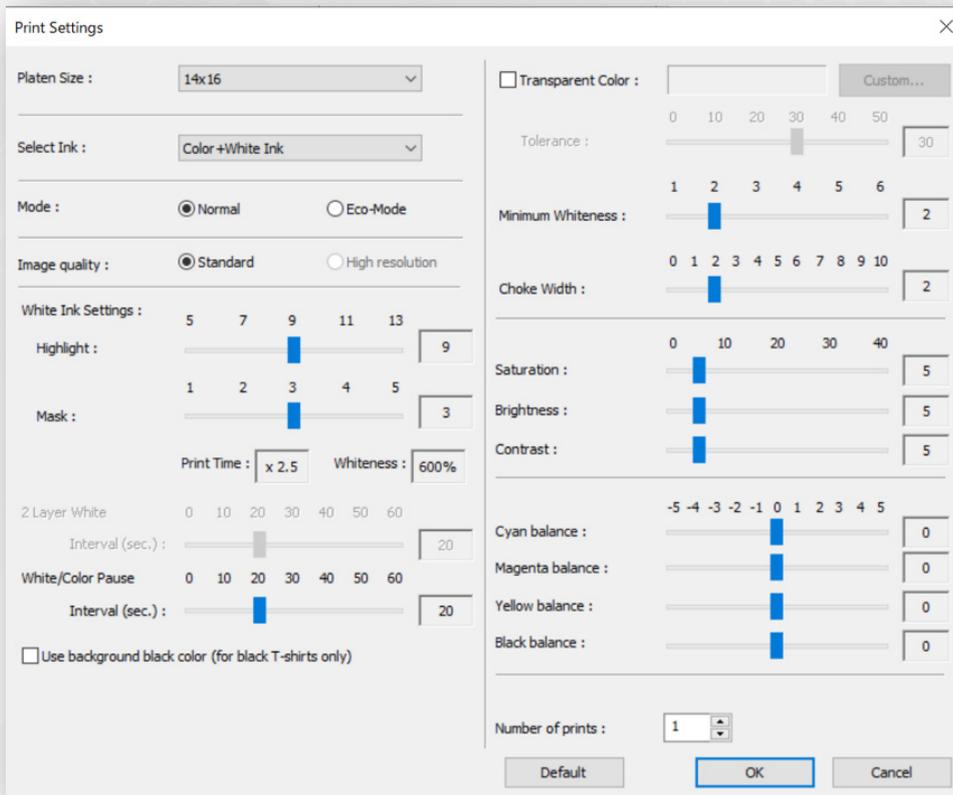
NO.	NAME	FUNCTION
1	Platen Area	<p>This varies according to the platen size set in the printer driver.</p> <p>The intervals between vertical and horizontal grid lines indicates 1 inch.</p> <p>At the time of printing, only such range that is clipped out by means of Platen Frame will be printed out.</p>
2	Add Image 	<p>Click to select an image from your computer.</p> <ul style="list-style-type: none"> <li>• For images with no transparency, acceptable file formats are the following: PNG, JPEG, BMP, and GIF</li> <li>• For images with transparency - PNG only.</li> </ul>
3	Print Settings 	<p>This button displays the screen for setting the printer driver.</p>
4	Change Background Color 	<p>Allows you to change the background color.</p>
5	RGB = 255 - 254 conversion button 	<p>When the checkbox is ON, the printer driver converts RGB=255 to 254 and then performs printing with white ink.</p> <p>When the checkbox is OFF, the printer driver treats RGB=255 as "Transparent color" and does not print white ink</p>
6	Print Button 	<p>Sends print file to printer.</p>
7	Printer Selection	<p>From the drop down menu, select a printer or file output.</p>
8	Info Button 	<p>This button allows you to confirm the version information of the GTX Polyester/ProB Polyester.</p>

## Manipulating your image in GTX Polyester / GTXpro Polyester



NO.	NAME	FUNCTION
1	Switch Units Button	This button allows you to switch between inches and centimeters.
2	Position	 Click and drag the image to position it on the platen area. Or, type values in to the (x,y) fields to position the artwork. The left-most edge of the platen area is x = 0, and the upper-most edge of the platen area is y = 0. (min value= 0, max value = 100).
3	Width/Height	 Click and drag the edges of the image to adjust the scale. Or, type values in to the (x,y) fields to position the artwork. The left-most edge of the platen area is x = 0, and the upper-most edge of the platen area is y = 0. (min value= 0, max value = 100). Alternately, scale the image by percentage of the original size.
4	Rotation	 Click to rotate an image clockwise by 90 degrees.
5	Fit to Print Area	 Click to automatically scale your image to fit the platen area.
6	Centering	 Click to center your image in the platen area.

# PRINT SETTINGS



The Highlight is set to **9** by default (600% white ink).  
You can adjust from 100% to 400%-800%

**TIP:** *If you are worried about seeing the texture of the underlying fabric, increase the highlight amount to improve.*

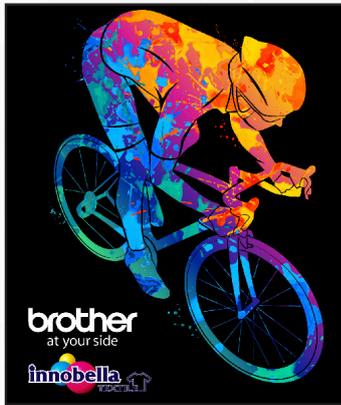
Minimum Whiteness is set to **2** by default.  
We recommend **2** for mesh type fabric and **5** for silky type fabric.

**PRECAUTION:** *If the minimum white ink amount is reduced below the recommended value, the ink may peel off in the dark areas after washing.*

Click **DEFAULT** to restore to the standard settings.  
Click **OK** to close the window.

# EXAMPLE PRINTS

H = Highlight  
M = Mask  
W = Minimum Whiteness



POLYESTER

**SIZE:** 12" x 16"

**PRINT SETTINGS:**  
H - 9 | M - 3 | W - 2

**INK VOLUME:** 9.89cc

**PRINT TIME:** 4:19

COTTON

**SIZE:** 12" x 16"

**PRINT SETTINGS:**  
H - 5 | M - 3 | W - 1

**INK VOLUME:** 6.92cc

**PRINT TIME:** 1:34



POLYESTER

**SIZE:** 12.5" x 12.2"

**PRINT SETTINGS:**  
H - 9 | M - 3 | W - 2

**INK VOLUME:** 10.24cc

**PRINT TIME:** 4:08

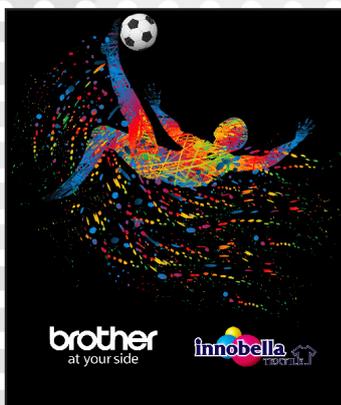
COTTON

**SIZE:** 12.5" x 12.2"

**PRINT SETTINGS:**  
H - 5 | M - 3 | W - 1

**INK VOLUME:** 6.86cc

**PRINT TIME:** 1:45



POLYESTER

**SIZE:** 14" x 12.5"

**PRINT SETTINGS:**  
H - 9 | M - 3 | W - 2

**INK VOLUME:** 4.43cc

**PRINT TIME:** 4:15

COTTON

**SIZE:** 14" x 12.5"

**PRINT SETTINGS:**  
H - 5 | M - 3 | W - 1

**INK VOLUME:** 3.08cc

**PRINT TIME:** 1:46