**WILFLEX PRODUCT DESCRIPTIONS**

**Genesis (GNS)**
High production, automatic or wet-on-wet printing. Wide range of standard colors, use with colored substrates or over a flashed white. Excellent printability, minimal build-up. Use for fine detail or half-tone printing. Genesis Super colors give maximum opacity on dark fabrics. Genesis 4-color process, tone colors and phosphorescent available.

**SuperBase (SB)**
General purpose base exhibits a soft hand, with a matte finish and is one of Wilflex’s most opaque bases. Advanced technology allows creamy viscosity SuperBase to be pumped. Virtually build-up free, an added benefit for high productivity printers.

**NuPuff (NPF)**
Industry standard for plastisol puff effects. Suitable for use on light or dark garments; good opacity. Flash or overprint for dramatic effects.

**SSV-FF/ MCV-FF**
“Fast fusion” inks designed to cure at temperatures of 270 F (132 C). SSV-FF for dark colored substrates, good opacity. MCV-FF for light colored substrates, may be printed wet-on-wet. Excellent elongation, suitable for many stretch fabrics, heat sensitive fabrics or carpets. **Standard colors available only in white, black and some specialty colors. Create additional colors by using PCs and fast fusion bases.**

**MSH**
Athletic ink suitable for uncoated nylon mesh. Excellent durability and adhesion with a gloss finish. Available in a number of standard colors plus as a mixing system suitable for simulating coated and uncoated PANTONE® Color Formula Guide colors and SGMA colors.

Special SSV Athletic Gold shades available to print a bleed-resistant, heavy deposit of ink on cottons and blends: SSV Athletic Gold 80010, Athletic Light Gold 80110 and IS Omni Gold 88800 (80110 and 88800 not shown on color card).

**One Step Nylon (OSN)**
One-part ink eliminates mixing and waste ink when printing on untreated nylon. Use like standard plastisol, won't dry in screen or harden in container. Wide range of colors available; flashes quickly, excellent for multi-colored designs. Addition of catalyst necessary when printing on waterproofed nylon.

**Transflex (TF)**
Use for hot-split or cold-peel transfers. Soft hand, highly durable. TF Super inks for high opacity, TF process and metallic/shimmer inks available. Excellent color, printing properties and wash fastness. TF suede-feel One PacPuff and TF Printable Adhesive available.

**Specialty Inks**
Wilflex sells a wide variety of specialty inks, including glitters, shimmer, phosphorescent, Reflective 10015IS, High Density additives, High Density Clear 10009HDC and Rock Base 10670RB inks. Natural Suede is available as a base (10425NS) or in three standard colors: Black 19111NS, Medium Brown 29111NS or Dark Brown 29222NS.

The color chips presented on this Color Card are simulations of Wilflex colors. Slight color variations may be seen between these chips and actual Wilflex inks. Not all ink ranges are available in every country.

**OTHER PRODUCTS FROM WILFLEX**

**Color Systems**

- **MX Mixing System**
  - A simple finished ink system for simulating PANTONE® colors with just 15 components. Designed for general purpose printing.
  - Prints feature vibrant colors and a matte finish.
  - MSH Nylon Series - MX lookalike system for creating PANTONE® simulations on uncoated nylon mesh, including porthole, micromesh and dazzle cloth.

- **PC Express**
  - A pigment concentrate and base system used to achieve PANTONE® simulations and thousands of custom colors with just 15 pigment concentrates, including black and white.
  - Used with 10680GNS Genesis Plus general purpose base.

- **Equalizers/ColorMaster**
  - Equalizers are a set of balanced pigment concentrates used as colorants to General Purpose Bases.
  - Equalizers are optimized for 21000SB.
  - ColorMaster pigments are available in the same hues, but at increased strengths.
  - ColorMaster pigments are designed exclusively for use with automated dispensing equipment.

- **Whites**
  - Wilflex sells a variety of white inks for specific applications:
    - Xtreme White 11999XW - general purpose white
    - Bright Tiger 11480HT - general purpose white
    - PolyWhite 11117HT - printing on polyester
    - Pennant White 11000PEN - printing on nylon
    - Athletic Trophy White 11003WHT - athletic applications
    - Olympia Plus White 11135WHT - 100% cotton

- **Additives**
  - Wilflex additives include reducers, thickeners and extenders:
    - Viscosity Buster 10025VB - improves flow properties of white inks and reduces tack of white and MSH inks.
    - Curable Reducer 10070 - viscosity reducer that cures at standard cure temperatures (320 F/160 C), ensuring lower viscosity without fear of cure problems.
    - Thickeners 1, 2 and 3
    - Finesse 10150FNS, Soft Hand Clear 10140CLEAR - soften and extend inks, for easier printability and softer hand
  - We also sell miscellaneous additives such as Dulling Additive, puff and flash additives plus High Density and Stretch additives.

All Wilflex inks are formulated to print on textiles. Unless otherwise noted, Wilflex inks must reach 320 F/160 C to cure and give designed characteristics. The information above is given in good faith, but pre-printing and testing for desired properties are strongly recommended. Please consult the Wilflex Textile User’s Manual or your Wilflex representative for more information on Wilflex products.

**PANTONE®** is a trademark of Pantone, Inc. All trademarks noted herein are either the property of PolyOne Corporation, Pantone, Inc. or their respective companies. Wilflex ink formulations for screen process printing produce simulations of PANTONE® Colors in this color reproduction method due to differences in ink film, opacity, pigment selection, and substrate.
Evaluation of Plastisol Inks
It is important to always pre-test plastisol inks before commencing production runs.

Wash Testing Plastisols for Cure
Failure to cure ink properly can result in poor wash fastness, inferior adhesion, unacceptable durability and increased likelihood of dye migration. Maximum ink tensile strength and elongation is accomplished by ensuring total fusion of the ink film. Testing procedures include wash testing and testing with solvent, with wash testing being the more reliable method. A wash test ensures that printed samples are subjected to standard home laundering practices to determine state of cure on ink film. Apparatus and materials include:
Large capacity 21.7-gal washer, large capacity 240-volt dryer, three large heavyweight, bath-size towels.

Procedure
1. Cut printed sample to be tested in half.
2. Place half of sample in washer with the three large bath towels.
3. Wash settings: Medium load 16.7 gallons, hot wash/cold rinse, normal /reg. @ 10 minutes, 90ml of concentrated detergent
4. After washing is complete, place sample and towels in dryer.
5. Dryer Settings: Cotton/High (105°F/40°C)/timed dry 30 minutes
6. Perform two to five complete wash and dry cycles.
7. Compare washed half of sample with unwashed portion.

Evaluation and Classification
Failure - The ink film is not cured when:
1. Severe cracking of the ink is noted.
2. Partial or total loss of the ink film from the garment is seen.
3. Slight loss of color intensity (AATCC Gray Scale for evaluating change in color 4-5), and slight nap show-through are normal for cured ink films after washing.

Transfer Release Test
It is important to conduct accelerated age tests in your plant, which will indicate how a transfer will release from the transfer paper after six months to one year “on the shelf.” Accelerated aging tests can be performed by placing the printed transfer in a hot box or hot room, at 100 hours at a temperature of 120 F. This will simulate one year of shelf life. Tests conducted in your plant will help keep your transfer/garment reject risk to a minimum.

Bleed Test - When Printing Polyester-containing Substrates
Since dye lot variation is very common, it is imperative to test a garment’s propensity for dye migration. Historically, fabrics containing polyester are more likely to bleed than any other fabrics whereas nylon and cotton much less likely to bleed. However, it is suggested that all dark fabrics that will be printed with white or light colored inks should be evaluated for bleeding. The bleeding phenomena occurs due to a reaction between the ink and the dyes of the fabric. The following is a test method evaluating the bleed potential of ink printed on a given fabric:
1. Bleed resistance (or the resistance of an ink to accept the dyes from polyester fabric) is determined by the chemistry of the ink, complete ink cure and by the ink deposit. Choose the screen mesh that duplicates the planned use of the white ink as well as two other possible combinations.
2. Print just the white ink on appropriate fabric swatches and hold for three weeks. After three weeks, visually evaluate the prints for whiteness. (You may choose to try accelerating this evaluation by holding the prints at 105 F/ 40 C for 2 to 5 days.)

Fabric Discoloration Test - When Printing Cotton Substrates
For direct print and transfer inks, it is extremely important to pre-test on dyed or stone washed garments. Avoid stacking hot, because such fabrics are more prone to color distortion due to the dye stuffs inherent in the garment. Fabric and dye characteristics can exhibit variance between manufacturers and from dye lot to lot. The following test will determine if the fabric dyestuffs are prone to discolor:
1. Print ink onto suspect fabric and fuse.
2. Cover the print area with a piece of the suspect fabric (sandwiching the print) and set in a heat press.
3. Set the heat press to 200 F and 5 PSI.
4. Close the transfer press and let sit for four hours before evaluation. If material is prone to discoloration, you will see a “ghost” image of your printed image on the material that was covering the printed area.

Call Wilflex Technical Services for more information on pre-test procedures 1-800-735-4353