Multiplast 300

Type
Glossy, drying tunnel PVC ink. Suitable for machine, hand and pad printing.

Application
Can be used almost all PVC materials, all types of self adhesive vinyl, soft vinyl, acrylics, polycarbonates, coated polyester and other types of plastic.

General
The Multiplast 300 ink series has a mild odor, is plasticizer-resistant and dries quickly and therefore can be used for layering. Not suitable to print on children's toys.

Drying
The Multiplast 300 inks dry by evaporation of the solvents. When air dried, the ink is hand dry after 5-10 minutes and can belayered after 0.5 - 1 hour. When tunnel dried, high production speeds can be realised at low drying temperatures.

When tunnel dried, the drying time is dependent on the tunnel temperature, fineness of the gauze, type of thinner.qualities of the material to be printed etc. The optimum proportion of temperature-conveyor belt speed must be found through experience. A guide-line is: 15-40 seconds in a drying tunnel with a good air circulation at 45-55 C°.

Solvents can penetrate deeply in soft PVC types and stay behind. A seemingly dry inkfilm could start sticking to other films when piled up.

Gloss
All colors have a nice satin gloss.

Adhesion
Adheres well onto the materials mention under 'Application'. We recommend testing adhesion and stackability before printing a complete order. Adhesion can be judged after approximately 12 hours.

Opacity
The Multiplast 300 inks have a high opacity, with the exception of some colormatic colors, pearl base colors and fluorescent colors. When optimal opacity is desired, extra opaque (EO) colors are available.

Light fastness and weather resistance
The colors have good light fastness when printed in fulltone using 7-55 T mesh. The thicker the layer of ink, the better the light fastness. Light fastness will become worse when extended with white or clear.

The inks have are weather resistant, provided that they are being used on the right materials.

Elasticity
The Multiplast 300 inks are elastic and can be used to print e.g. double-sided stickers where multiple layers need to be printed over each other. Keep in mind that drying time will be longer when printing more layers, which negatively affects stackability. Softer types of vinyl can be printed, but pay attention to migrating solvents of the ink or plasticizers of the material.

Ink usage
When using 25% thinner:
100 - 40(T) mesh: 50-55 m²/ltr
120 - 34 (T) mesh: 60-65 m²/ltr

Thinners
Before adding thinners, stir the ink well. For machine printing, add 20-25% of **Thinner 51** for quicker drying. For hand printing and printing of fine details, use **Retarder 7** or **Retarder 4** (extra slow).

In case of too much flow, thinner or retarder can be replaced by an equal amount of **Gelretarder CL**. When working in high surrounding temperatures, add up to 5% **Thinner 27**. To improve adhesion to soft PVC, use **Thinner 39**. always make test prints.

Multiplast inks can be sprayed using 40-60% of **Thinner 11** and brushed using 20-50% **Thinner 51** or **Retarder 7**.

Extension
To lower color intensity, 349 Clear can be added in every proportion. This will negatively affect the light fastness of the ink, depending on the amount added.

Color mixing
The colormatic mixing system consists of the colors A to M and clear, with accurate recipes to mix PANTONE® colors, Visprox colors or colors from other systems. (When printed on a white surface with a 100-40(T) mesh).

Half tone printing
When printing in half tone or printing fine lines, 5-35% 350 base tix can be added to the ink. Color intensity, opacity, gloss and light fastness will decrease.

For printing in halftone, 351 yellow tix, 352 cyan tix, 353 magenta tix and 354 black tix are available. These colours have a good light fastness when unextended. For adjusting the intensity of the color, 5-35% 350 base tix can be added.Color intensity, opacity, gloss and light fastness will decrease.

Mattifying
Visprox mattifying paste can be added to the Multiplast 300 inks to decrease the gloss. Depending on the desired result, add 10-30%.

Varnish
The gloss can be increased by using 349 Clear as a varnish. Also suitable to use to increase weather resistance. For a more sustainable option to increase weather resistance, **NTS 4449 Clear** (two-component, slow-drying) can be used as a protective layer. However, this is only possible when the NTS ink adheres well to the printed material.

Pale gold, Rich Gold and Silver
The gold and silver inks have a limited potlife in mixed form. Pastes are available to mix your own inks according to your needs. See Visprox Additives for more information on the gold and silver pastes.

AGA Color Solutions Europe b.v. – Nijverheidsweg 35a – 9403 VN Assen – Nederland
Tel.: +31 (0) 23 524 8131- Email: verkoop@agacolor.com

6

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Fluorescent colors
The multiplast 300 contains fluorescent colors that can be used for advertising and safety purposes. The intensity of these colors is highly dependent on the white base underneath. A whiter substrate will result in more intense colors. Light fastness of these colors is moderate. Best results will be achieved using 77-55 T mesh.

Pearlbase
For a pearl effect, 4% Pearlbase can be added to Colormatic colors A-M. The ink can then be used according to its regular guidelines.

Silverpaste en Silverpaste EO
It is possible to mix your own silver colors by adding 10-15% of Silver paste or Silver paste EO to Multiplast 349 Clear. Best results will be achieved using 100-40 T mesh. The Silver paste EO may release some color after printing.

Sparkling Silver
To obtain a metallic effect, Multiplast 300 Sparkling Silver canbe used. Add 25% of Colormatic A-M to Sparkling Silver and use a 77-55 T mesh for best results.

Fine en Coarse Glittering Silver
For a glittering effect, Fine or Coarse Glittering Silver can be used. The coarse pigments can only be printed using 29-120 T or coarser mesh. A round squeegee is recommended. Keep in mind that this ink dries slowly and might shrink orcause shrinkage of material (self-adhesive vinyl and soft PVC). Available on request.

Phosphorescent Multiplast 300
Can be used to obtain a phosphorescent effect on promotional items or other non-safety applications. The pigments in the ink absorb natural or artificial light and save the energy. In the dark, the energy can be seen as a green/yellow glow that is emitted from the ink.

he duration of emission is dependent on the thickness of the layer of ink and how much light the ink has received. On a white substrate, printed with 29-120 - 49-70 T mesh and receiving as much light as possible, the ink can emit a glow for 30 minutes. Multiple layers can be printed to increase duration and intensity, provided that the material is suitable for printing multiple layers. The ink is suitable for indoor use.

Because of the size of the pigments, the ink must be printed using max. 77-5 T mesh. The prints must be dried in a drying rack because of the thick layer of ink. Since the ink is very viscous, it is important to floodcoat the screen slowly to ensure good quality prints. Avoid high temperatures and sliding forces during printing and dryinf, since they can be detrimental to the storage and emission of energy. Available on request.

Mesh
Many types of mesh can be used with the Multiplast 300 inks. Best results can be achieved using 77-55 - 140-34 T mesh when printing the standard and colormatic colors. Gold and silver are best printed using 100 T, Sparkling silver using 77-55 T, Glittering silvers using 29-100 T and phosporescent using 29-120 - 77-55 T mesh.

Films
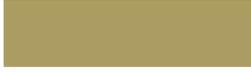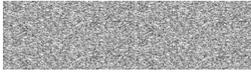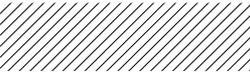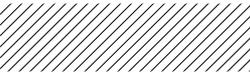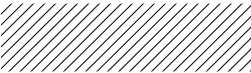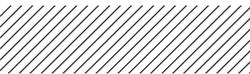All direct, indirect and capillary films for solvent-based inks can be used.

Mesh cleaning
Mesh should be cleaned immediately after printing. We recommend using **Screenwash LOD** or **Screenwash GA**.

Test prints
Please, continually make test prints before moving on to printing the complete order.

This technical information is meant to be a guideline. Even though the information is given after detailed examination and to the best of our knowledge, AGA Color Solutions Europe b.v. can take no responsibility for it.

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7

visprox Multiplast 300

01 White L, EO, SO	34 Orange Red (± pms Bright red C)	46-1 Pale Gold (± pms 871)
02 Black M, EO	35 Fashion Pink (±pms 674C)	46-2 Rich Gold (± pms 10125C)
04 Primrose Yellow (± pms 101C)	37 Carnaby Violet (± pms2627C)	47 Silver, EO (± pms 877C)
06 Medium Yellow (± pms Yellow C)	38 Brilliant Green (± pms 340C)	Sparkling Silver no pms reference)
07 Bright Orange (± pms1655C)	39 Spring Green (± pms 2270C)	Pearl Base (± pms 10101C)
08 Fire Red (± pms 485C)	41 Pale Red (± pms185C)	Bronze paste (± pms 873C)
09 Geranium (± pms7621C)	43 French Blue (± pms 2145C)	45 Clear flat (mat)
10 Bright Red (± pms 2035C)	88 Ultra blue (± pms 2728C)	49 Clear
11 Bright Cerise (± pms 238C)	A Lemon Yellow (± pms 012C)	50 Base Tix
12 Violet (± pms 2685C)	B Golden Yellow (± pms 7548C)	Obliterating Grey (Tussendrukgrijs)
13 Paris Green (± pms 2420C)	C Orange (± pms 021C)	
14 Dark Green (± pms 3308C)	D Red (± pms199C)	
15 Sky Blue (± pms 2195C)	E Carmine (± pms 200C)	
16 Magenta (± pms2612C)	F Pink (± pms 214C)	
18 Medium Green (± pms 7726C)	G Bright Violet (± pms 274C)	
19 Medium blue ± pms 2756C)	H Permanent Blue (± pms2945C)	
20 Crimson (± pms 202C)	K permanent Green (± pms2245C)	62 Primrose Yellow Fluo
22 Brilliant Blue (± pms 2738C)	51 Yellow Tix (pms Process Yellow)	63 Light Orange Fluo
23 Mono Blue (± pms 2194C)	52 Cyan Tix (pms Process Cyan)	64 Deep Orange Fluo
27 Blue (± pms 301C)	53 Magenta Tix (pms Process Magenta)	65 Fire Orange Fluo
29 Azure Blue (± pms2388C)	54 Black Tix (pms Process Black)	67 Green Fluo
33 Super Orange (± pms2018)	55 Rubine Red Tix (± pms Rubine Red C)	70 Pink Fluo

The PMS references are an approximation when printed using 100T mesh. Type of mesh, degree of dilution and type of light can affect the results.