TCI 8700

Type
A glossy, fastdrying two-component ink with a long pot-life. Adheres onto various difficult substrates. Can be used for tunnel drying and pad printing.

Application
On pre-treated polyethylene and polypropylene, various types of polyester and acrylics, PVC, ABS, melamine, aluminium, sandpapered brass and copper, tinplate, stainless steel and most lacquered substrates. Can also be used on glass and ceramics, for which several adhesio The TCI 8700 inks are also applicable on: polyester, glass and ceramics, for which several adhesion additives are available. On retro-reflective foils, the transparent traffic sign ink series TCI 8790 is applied.

General
TCI 8700 is one of the few two-component inks that can be tunnel dried. Contains all the qualities of regular two component inks (adhesion onto various substrates, high chemical resistance), yet is as easy to use as single component inks. Tunnel drying prevents dust formation compared to otherwise slow drying two component inks.

Drying
Drying takes place by evaporation of the solvents. The chemical reaction between the components starts only after drying. This reaction does not require oxygen, so piling up is possible immediately after drying and will not disturb the hardening process.

When air dried, the ink is hand dry after 5-15 minutes. When air or tunnel dried, the drying time is dependent on the temperature, fineness of the gauze, type of thinner,qualities of the material to be printed etc. The optimumproportion of temperature-conveyor belt speed in the tunnelmust be found through experience. A guide-line is: 40-60seconds in a drying tunnel with well-functioning air
circulation and cooling sections at 60 C°.

The TCI 8700 inks can be enameled so as to obtain a better adhesion on metals. Enameling can also be effectuated after tunnel drying in order to realize instant hardening of the inkfilm. Enameling: 10-25 minutes at 150 - 170 °C. Higher temperatures can cause yellowing or discoloration.

Gloss
All colors have a beautiful high gloss.

Adhesion
Adheres well onto materials mentioned under 'Application'. The materials to be printed need to be free of oxides and grease. Ensure that the cleanser itself does not contain grease and that no condensation takes place. We recommend using **I.P. Thinner 29**. Polish the material with a dry cloth. Judgment of adhesion is possible after reaction has fully taken place (usually after 48 hours, however reaction speed is significantly slower when temperatures drop below 15°C, e.g. at night).

Chemical resistance
When fully hardened, TCI 8700 inks are resistant to many cosmetic products, detergents, minerals, oils and seawater. The ink is not very resistant to kerosine, aggresive aromatics and ketones, chlorinated hydrogens, acids and lyes.

Opacity
TCI 8700 inks have a high opacity. For an even higher opacity, 12EO colors from the TCP 9900 series can be used.

Light fastness and weather resistance
The inks have a good light fastness when printed in full tone (77-55 (T) mesh). The thicker the layers of ink, the better the light fastness. When mixed with white, Base Tix or Clear, light fastness decreases. Weather resistance is good, dependent on the adhesion and quality of the material. Weather resistance is lower when little to no hardener is added.

Ink usage
30-65 m²/ltr when used with 10% hardener. 20% thinner and a 77-55 - 120-34 (T) mesh.

Hardener no. 2
Add 6% of Hardener 2 to a weighed amount of ink. To increase adhesion and chemical resistance, add 10%. Only use thinner after properly mixing the hardener and the ink. At 20°C, the potlife of an ink-hardener mixture is around 12-36 hours.

Hardener no.5
To increase adhesion onto glass and ceramics, add 15% of Hardener no. 5 to a weighed amount of ink. If desired, 5% of thinner or retarder can be added. Adhesion can be judged after 24 hours. Ink can be dried at room temperature or can be force dried. At 20°C, the potlife of an ink-hardener mixture is around 8 hours.

Hardener no.9
To obtain a water resistant layer of ink on glass, ad 6% of hardener no. 9 to a weighed amount of ink. The ink must be dried at 140°C for around 20 minutes. Higher temperatures can cause yellowing of the harderer. At 20°C, the potlife of an ink-hardener mixture is around 12-36 hours, however the ink may yellow slightly.

Thinners
Mix the ink well before adding a thinner. For machine printing, add 10-20% of **Thinner 10**. For hand printing or printing of fine details, use **Retarder 8** or a mix of thinner and retarder. Under extreme circumstances, the extra slow **Retarder 4** can be used. Thinner or retarder can be replaced by an equal amount of **Gelretarder C.L** in case of bleeding (decreases gloss). TCI 8700 and 8790 can be sprayed using 40-80% of **Thinner 11** or brushed using 20-50% of **Retarder 8**. Adding too little of thinner can be detrimental to the drying and printing qualities of the ink.

Extension
To lower color intensity, TCI 8794 Clear can be added in every proportion. This will reduce light fastness, depending on the amount added.

Mixing colors
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).

TCI 8700

Halftone printing
For printing of very fine lines or printing in half tone, TCI 8750 base tix can be added (5-35%). Color intensity, opacity, gloss and light fastness will decrease.

Mattifying
Gloss can be reduced by adding Visprox mattifying paste. Depending on the desired result, add 10-30% of the paste. Will decrease light fastness and weather resistance.

Varnish
The gloss can be increased by using TCI 8749 Clear as a varnish. Also suitable to use to increase scratch resistance. For a sustainable option to increase weather resistance, NTS 4449 Clear can be used as a prptective layer.However, this is only possible when TCI ink adheres well to the printed material.

Traffic Sign ink series TCI 8790
These transparent inks in the 6 international traffic colors have been developed for printing of retro-reflective materials (such as traffic signs). When used with a 77T mesh, the ink has the right color and transparency to meet international requirements.

Pearlbase
For a pearl effect, 4% Pearlbase can be added to Colormatic colors A-M.

To increase color intensity, TCI 8790 transparent inks can be added (max 30%).

Sparkling Silver-Metallic
To obtain a metallic effect, TCI 8700 Sparkling Silver can be used. Add 25% of Colormatic A-M to Sparkling Silver and use a 77 T mesh for best results.

Fine and Coarse Glittering Silver
For a glittering effect, Fine or Coarse Glittering Silver can be used. The coarse pigments can only be printed using 27 T or coarser mesh. A round squeegee is recommended. Keep in mind that this ink dries slowly and might shrink or cause shrinkage of material (self-adhesive vinyl).

Silver, Pale and Rich Gold
These inks need to be protected using a clear base to increase weather resistance when used outside. In mixed form, the golds and silver have a limited potlife. However, pastes are available (see **Visprox Additives**) to mix your own according to your needs.

Extra opaque
When an even higher opacity is required, take a look at the TCP 9900 ink series.

Layered Printing
A second layer of color or varnish needs to be printed within 48 hours of printing the first layer. Otherwise, printing can have a negative effect on the underlying layer.

Mesh
Many types of mesh can be used. Meshes of 77-140 T give best results when used with the standard or colormatic inks. Gold and silver are best printed using 100 T mesh and Glittering Silvers using 27 T mesh.

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

Mesh Cleaning
Mesh needs to be cleaned immediately after printing, use **Screenwash LOD** or **Screenwash GA**.

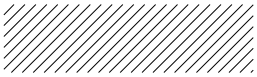
Test Printing
Please, continually make test prints before moving on to printing the complete order.

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.

visprox TCI 8700

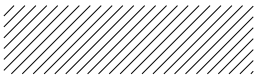
01 White L, EO, PR

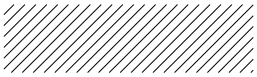
02 Black M, EO


04 Primrose Yellow
(± pms 101C)

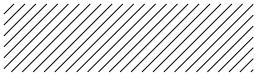
06 Medium Yellow
(± pms Yellow C)

07 Bright Orange
(± pms1655C)


08 Fire Red
(± pms 485C)


09 Geranium
(± pms7621C)

10 Bright Red
(± pms 2035C)

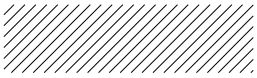

11 Bright Cerise
(± pms 238C)

12 Violet
(± pms 2685C)

13 Paris Green
(± pms 2420C)

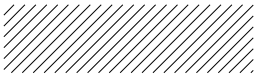
14 Dark Green
(± pms 3308C)

15 Sky Blue
(± pms 2195C)


16 Magenta
(± pms2612C)

18 Medium Green
(± pms 7726C)

19 Medium blue
± pms 2756C)


20 Crimson
(± pms 202C)

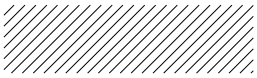
22 Brilliant Blue
(± pms 2738C)

23 Mono Blue
(± pms 2194C)

27 Blue
(± pms 301C)

29 Azure Blue
(± pms2388C)

33 Super Orange
(± pms2018)


34 Orange Red
(± pms Bright red C)

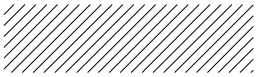
35 Fashion Pink
(±pms 674C)

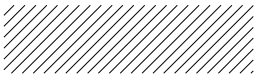
37 Carnaby Violet
(± pms2627C)

38 Brillaint Green
(± pms 340C)

39 Spring Green
(± pms 2270C)

41 Pale Red
(± pms185C)


43 French Blue
(± pms 2145C)


88 Ultra blue
(± pms 2728C)

A Lemon Yellow
(± pms 012C)

B Golden Yellow
(± pms 7548C)

C Orange
(± pms 021C)

D Red
(± pms199C)

E Carmine
(± pms 200C)

F Pink
(± pms 214C)

G Bright Violet
(± pms 274C)

H Permanent Blue
(± pms2945C)

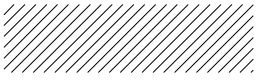
K permanent Green
(± pms2245C)

51 Yellow Tix
(pms Process Yellow)

52 Cyan Tix
(pms Process Cyan)

53 Magenta Tix
(pms Process Magenta)

54 Black Tix
(pms Process Black)


55 Rubine Red Tix
(± pms Rubine Red C)

46-1 Pale Gold
(± pms 871)

46-2 Rich Gold
(± pms 10125C)

47 Silver
(± pms 877C)

Sparkling Silver
(no pms reference)

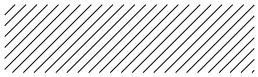
Pearl Base
(± pms 10101C)

Bronze paste
(± pms 873C)

45 Clear Flat (Mat)

49 Clear

50 Base Tix


Obliterating Grey
(Tussendrukgrijs)

05 Blackboard Black

92 Traffic Sign Blue

94 Traffic Sign Green

95 Traffic Sign Orange

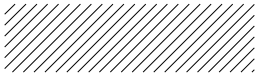
96 Traffic Sign Red

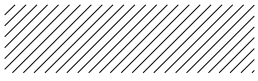
97 Traffic Sign Yellow

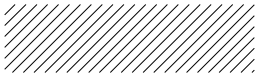
98 Traffic Sign Dark Red

99 Traffic Sign Tourist Brown

FW106 Traffic Sign
± Carmine E (pms 200)







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.