

Screen Printing Inks Type HV/Z

Field of application:

1. Acrylic glass, polystyrene and copolymers (paper)

with retarder 24590/I (quick evaporation)
or with retarder 26123 (medium evaporation)
or with retarder 46038 (slow evaporation)

2. Polycarbonate and CAB

with retarder 46038

3. PVC (hard and soft) and copolymers

with retarder 24655

Form supplied:

All screen printing inks are delivered in concentrated form. They must be diluted by adding a retarder in order to make them ready for printing.

In some cases we recommend to combine the retarders. You can probably meet all demands by mixing the retarders in any ratio requested.

The quantity of retarder to be added to the screen printing inks is about 15 per cent, sometimes 20 per cent, depending on the kind of printing screen and the printing speed. With the addition of retarder, too, the screen printing inks must keep their nearly thixotropic consistency and thus render printings with sharp contours.

Characteristics:

The screen printing inks are resistant to weathering and light-fast. We use raw materials of high quality which are permanently technically controlled in view of their suitability.

The inks are well-tried for more than 30 years in outdoor application.

Colours:

All colours of the HV/Z series can be mixed with each other.

Our colour card shows the available standard colours which are also used with the "HV/Z ink mixing system". They are free of lead, cadmium and other heavy metals. Thus all colour shade requirements can be met as far as the light resistance will not get worse. Formulations can be made available to enable you to match your colour shades yourselves.

For adjusting the transparency we can deliver

Transparency agent 20876 HV/Z.

The addition of the transparency agent does not change the printing properties. There are only certain limits because the light fastness can be affected when important quantities have been added.

Important: The colour shades **red violet, violet, blue, and green** can because of their high pigment concentrations only get printed as a pure colour if 25 % transparency agent got added.

White needs an addition of 40 % transparency agent.

In order to obtain optimum resistance values, we recommend to coat the printings with UV-protective lacquers.

Drying:

The screen printing inks type HV/Z dry physically, i.e. by evaporation of the solvents. Already 45 minutes later the next printing operation can be done.

The drying can be forced by higher temperature. The screen printing inks of the HV/Z series are heat resistant up to 170 - 180°C without yellowing or colour change.

Moulding:

Acrylic glass parts printed with screen printing inks type HV/Z can be moulded by all the usual methods and it is possible to employ male and female moulds without the likelihood of any damage to the lacquer finish.

Transformation into spraying paints:

Screen printing inks type HV/Z can be transformed into spraying paints

Type PA/21 for polycarbonate, ABS, polystyrol, acrylic glass and PVC

by adding clear lacquers and special thinners - see information sheet 222.

Pre-treatment of the substrate:

An essential condition for adherence and long durability is a dry clean substrate free of grease and wax.

The following cleaning agents can be used:

warm water
warm soap water (rinse thoroughly with clear water)
cleaning agent 42817

In order to avoid electrostatic charge you can wash the parts with antistatic agent. The antistatic agent should not dry but the humid surface should be dried with a cloth free of fluff. After treatment with the antistatic there should be no film visible on the surface.

Attention: Avoid too intense rubbing because of the risk of new static charge.

Efficiency of the anti-static treatment: about 5 to 6 hours.

We want to provide you the best possible advice with the above data which are based on carefully performed tests. However, we cannot undertake any guarantee in view of the multitude of possibilities in application and working methods.

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EXAMPLE

Coating of Acrylic Glass by the Screen Printing Process

I. Printing the face

a) Application of the coloured screen printing inks type HV/Z

b). Application of

screen printing UV-protective lacquer clear 24769 HV/Z glossy
or screen printing UV-protective lacquer clear 44437 HV/Z satin gloss

or by spraying

UV-protective lacquer clear 39884 PA/21 glossy
or UV-protective lacquer clear 47831 PA/21 satin gloss

For many years, this method has stood the test under extreme climate conditions (Singapore, Hongkong, high mountains, and sea climate).

II. Printing the back

a) Application of the coloured screen printing inks type HV/Z

b). Backing with screen printing ink white HV/Z

c) Application of

Screen printing lacquer clear 16088 HV/Z

or by spraying

Lacquer clear 30307 PA/21

In order to simplify stock holding you can also use the UV-protective lacquers mentioned under item I.

Annotation: In illuminated signs can be high temperatures - up to 70°C in summer. A sudden cooling causes considerable water of condensation. The coating with clear lacquer will render the complete system faster.