FARBAGLASS



Fields of application

Two component screen/pad printing ink suited for the following substrates:

- Acrylic glass,
- Lacquered surfaces,
- Metal,
- Ceramics,
- Thermosets,
- Polyamide,
- Polycarbonate,
- Pre-treated polyethylene (PE) and polypropylene(PP),
- Polyurethane,
- Chromium plated parts

Different substrates may differ in printability due to difference in surface properties hence preliminary trials are essential before printing.

Application Process

These inks are suitable for both screen and pad printing.

These inks can be used with all pad printing machines with clichés and pads currently used for industrial applications. The printing result may be affected by the type of screen, depth of the pad printing cliché plate and shape, and hardness of the printing pad.

A temperature between 20-25°C and humidity around 40-60% will be ideal for printing processes to achieve optimum adhesion.

The glass surface must be free from any impurities (silicone, dust, grease, graphite, fingerprints) which might affect adhesion and printing. Hence, pre-cleaning and pre-treatment will generally enhance the adhesion.

Pre/post treatment generally improves adhesion with this 2-component ink.

These inks are suitable for both indoor and outdoor applications.

Characteristics

The ink should be stirred homogeneously before and during printing.

Since this is a 2-component ink system, it is required to add hardener in the right percentage and stir homogeneously.

While processing with hardener the temperature should not go below 20°C as the proper mixing won't occur at low temperatures. Also, high humidity should be avoided for proper curing.

Pre-reaction time

The ink mixture should be kept around 15 mins for pre reaction to occur.

Pot life

The pot life of ink hardener mixture is 4-6 hrs at 20-25°C and 50% humidity.

Inks adhesion may decrease after the mentioned hours.

Drying

Apart from evaporation of solvent, ink drying includes crosslinking between ink and hardener which ultimately leads to hardening of ink film. Though touch dry occurs in minutes (5-10), the actual adhesion of ink occurs in approximately 36-48 hrs depending upon the hardener used.

Colors

Basic shades

The basic shades consist of 12 basic colors and can be used to produce wide color shades for Pantone, HKS, RAL, NCS, etc.

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FarbaGlass Ink shades			
BASIC COLORS	SHADES	CODE	COLORS
Yellow	Light	KO 203	
	Medium	KO 201	
Red	orange	KO 306	
	light red	KO 307	
	Standard Red	KO 308	
	Pink	KO 309	
Blue	Violet	KO 505	
	Standard Blue	KO 506	
Green		KO 603	
White	standard	KO 100	
	opaque	KO 101	
Black	standard	KO 900	
	opaque	KO 901	

Additives

Catalysts:

Catalyst helps in increasing adhesion of ink film to the surface by chemically cross linking with the ink pigments. Hence, there are standard catalysts based on the ink composition.

Standard catalyst for this ink is CAT 135:

Catalyst 5-10% CAT 135 (for optimum adhesion)

Catalyst 5-10% CAT 139 (for better resistance and improved adhesion)

Catalyst 5-10% CAT 127 (high chemical resistance)

Catalyst 5-10% CAT 131

It should be noted that proper adhesion with hardener (chemical and physical resistance) can be attained after minimum 36 hrs of printing at 20-25 C. Therefore, any adhesion test should be done after 36-48 hrs for proper results.

Temperature lower than 15°C should be avoided as cross linking does not occur at low



temperatures. For this reason, post treatment is desirable in many cases. Heating at 150 -180 C for 20-30 minutes helps in improving adhesion of ink film over surface.

Dilutant:

Dilutant helps in adjusting the viscosity of the printing ink.

 Dilutant (fast)
 15-25%
 DLT 132

 Dilutant (fast)
 15-25%
 DLT 126

 Dilutant (slow)
 15-25%
 DLT 124

 Dilutant (standard)
 15-25%
 DLT 130

Retarders:

Retarder is used for influencing the drying of ink mixture at different temperatures (climatic conditions)

Retarder 5-10% ANX 183

Retarders and thinners can be used interchangeably at high temperature conditions. The above mentioned dilutant DLT 130 can be used as both retarder and dilutant in high temperature conditions to control drying.

Levelling agents:

These agents fix the ink pigments uniformly which enables to obtain uniform shade of desired colour.

Excessive addition should be avoided since high percentage can negatively influence printability.

Levelling agent 5-10% EQS 223

Cleaners:

The cleaner RFR 197 is recommended for manual cleaning or automatic cleaning of the working equipment.

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The above statements are accurate to our best knowledge and belief. However, due to the great number of possible influences during the manufacture of the substrate and the variation in the application process suggest that suitability testing take place under actual conditions before production. No legally binding guarantee of certain properties or of the suitability for a definite application purpose can be derived from the above information.

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Precautions:

Shelf Life:

Shelf life depends upon the formula/reactivity of the ink system as well as the storage temperature.

The shelf life for an unopened ink container if stored in a dark room at a temperature of 15 - 25 °C is 2 years.

For further information on safety, storage and environmental aspects concerning these products please refer to Safety Data Sheet.

Addition Technical information can be obtained from our product safety department.

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