

## IcoBond EXC

Multipurpose ink for Demanding Substrates

Issue No. 008/2019

**IcoBond EXC** is a two-pack screen printing ink with outstanding resistance to many chemicals and solvents with excellent adhesion to an extensive range of demanding materials, including Nylon, Thermoplastic Polyurethane, and other plastics.

### Mixing Information

**IcoBond EXC** inks are supplied in two parts (ink base and **PE386** Catalyst).

Before printing, estimate the amount of ink required for use during an 8 hour period. Mix ink and catalyst thoroughly before adding any thinner.

Thoroughly mix the ink and catalyst together in the following ratios:

<b>IcoBond EXC</b> Inks	90% by weight
<b>PE386</b> Catalyst	10% by weight

### Drying

**IcoBond EXC** dries by combination of solvent evaporation, and a chemical reaction between the ink base and catalyst.

**At room temperature, full chemical resistance and adhesion are not fully developed until about four days after printing.**

Adhesion will be improved and drying time reduced considerably when **IcoBond EXC** is dried at elevated temperatures.

The following tables can be used as a guide:

#### Convection Oven

Temperature:	Drying Time:
140°C	5 - 10 minutes
100°C	10 - 15 minutes
80°C	20 - 30 minutes

### Printing and Wash up

Stencil must be solvent resistant.

Graphic emulsions are recommended:

Diazo Dual Cure Graphic Emulsion – **Dirasol 915**

Diazo Graphic Emulsion – **Dirasol 22** and **Dirasol 32**

After printing, inks can be cleaned easily from the mesh using Multipurpose screen cleaner **ZTC639**.

### Adhesion

Product will gain adhesion after drying. Please ensure that **IcoBond EXC** is fully cured before testing adhesion. Due to chemical cross-linking processes, this may take up to 24 hours, before full adhesion is achieved.

### Main Characteristics

#### Properties

- Good Resistance to Heat, Chemicals and Solvents
- Formulated Lead-free
- Excellent Adhesion and lamination resistance
- Pantone matching system available
- May be air dried or force dried

#### Curing

30 minutes to 5 hours (See Drying section)

#### Thinning

**15-20% ZVC557HF** Thinner

For slow drying, use **15-20% ZV558** Retarder

#### Wash-up

Wash up with **ZTC639**

#### Mesh

Monofilament 68-120 threads/cm<sup>2</sup>

#### Stencil Type

Most direct stencil materials are suitable.

#### Recommended:

Emulsion **Dirasol 22**, **Dirasol 32** and **Dirasol 915**

#### Coverage & Mesh No.

40-50M<sup>2</sup> using a 90:48PW mesh

#### Applications

Aluminium, and some other metals.

Polyethylene, Polypropylene, TPU and other plastics

**IcoBond EXC** inks are highly suitable for use on Ski / Snowboard Production

**IcoBond EXC** inks can also be used in laminating processes, due to their heat resistance

#### Colour Range

13 Line Colours

4 Colour Process set

#### Chemical and Solder/Heat Resistance

When inks are fully cured, they possess excellent resistance to most commonly used chemicals including – Acids, Alkalis, Solvents, Grease and other lubricants, Cosmetics, Detergents and other household products.

**IMPORTANT: Stir mixed ink well before every use. Always test the adhesion of cured IcoBond EXC before commencing full production, due to variation in printing substrates from batch to batch.**

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### Colour Range

#### Line Colours

<b>PE001</b>	Black
<b>PE021SW</b>	Opaque White
<b>EXC021</b>	Tinting White
<b>EXC064</b>	Yellow (GS)
<b>EXC066</b>	Yellow (RS)
<b>EXC114</b>	Orange
<b>EXC127</b>	Violet
<b>EXC165</b>	Magenta
<b>EXC164</b>	Red (BS)
<b>EXC191</b>	Red (YS)
<b>EXC230</b>	Blue
<b>EXC325</b>	Green
<b>EXC381</b>	Mixing Base

Available in 5 Kg containers

#### Four Colour Process Inks

<b>EXC004</b>	Process Black
<b>EXC052</b>	Process Yellow
<b>EXC135</b>	Process Magenta
<b>EXC215</b>	Process Cyan

Available in 5 Kg containers

#### Catalysts

<b>PE386</b>	Catalyst
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Available in 1 Ltr containers

#### Solvent:

<b>ZVC557HF</b>	Thinner
<b>ZV558</b>	Retarder

Available in 5 Ltr containers

Orders can be placed with your local sales representative, or to Customer Services on the telephone number listed below.

### Safety and Handling

#### IcoBond EXC:

- Is formulated free from any (toxic) carcinogenic, mutagenic or reprotoxic chemicals.
- Is formulated free from lead and is tested to comply with the RoHS (2011/65/EU) standard
- All products should be stored at moderate temperatures, between 5°C and 30°C. Storage outside of these temperatures may lead to deterioration in the performance of the product.

Comprehensive information on the safety and handling of IcoBond EXC screen inks and solvents is given in the appropriate ICONINKS Safety Data Sheet.

### Environmental Information

#### IcoBond EXC inks

- Do not contain ozone depleting chemicals as described in the Montreal Convention.
- Are formulated free from aromatic hydrocarbons.
- The IcoBond EXC range has been developed not to contain phthalates restricted for use by Council Directive 2005/84/EC

#### IcoBond EXC Catalysts

- Do not contain ozone depleting chemicals as described in the Montreal Convention.

The information and recommendations contained in this Product Information sheet, as well as technical advice otherwise given by representatives of our Company, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Product Information sheet out of date and users are requested to ensure that they follow current recommendations.

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