

IcoCharge DC

Textile : Discharge Ink System

Issue No. 107/2011

IcoCharge DC is a discharge ink system which produces exceptionally bright, soft handle prints on suitably dyed fabrics.

Curing Information

IcoCharge DC inks must be heat cured to produce the discharge result. The curing schedule should be chosen to suit both the dischargeability and heat resistance of the fabric. Care must be taken when using infra-red dryers to ensure that prints are fully cured. Best results are achieved when prints are fully cured immediately after printing.

Under curing may result in a white, powder-like deposit on the surface of the print over a period of days. The deposit will be removed by machine washing. Under curing may also result in reduced wash fastness.

It is essential that drying equipment is fitted with adequate fume extraction.

Fastness

When used in accordance with our recommendations, light fastness is typically at least 6 on the Blue Wool Scale and the inks have excellent wash fastness to I.S.O. Tests No. 1 (40 °C), 2 (50 °C) and 3 (60 °C).

The colours also have very good resistance to dry cleaning and direct ironing. Please note that an adequate deposit of ink must be applied, or wash fastness may be reduced.

Garment Labelling

Due to the wide variations in printing and drying conditions, it is possible for residual chemicals both from **IcoCharge DC** inks and from discharged dyestuffs to remain on the garment.

Although an independent study has shown little or no risk of skin irritation through contact, it is recommended that where children's garments are decorated they be labelled 'Wash Before Wearing' to prevent contact through sucking and chewing.

Fibrillation

Fibrillation may occur when printing onto short fibre cotton fabrics and similar materials. This is caused by loose fibres penetrating the ink surface during washing, giving the appearance of reduced wash fastness. The effect may be minimised by applying a thicker ink layer.

IcoCharge DC Activator

IcoCharge DC Activator is supplied in 1 kg pack size. Prior to use, **IcoCharge DC** Activator must be mixed into **IcoCharge DC** inks at 5% level.

The Activator should be thoroughly blended into the required colour in a well ventilated area.

The ICONINKS Matching System

The **ICONINKS** Matching System enables printers to readily and economically match a wide variety of special shades. It consists of 9 lead-free **ICONINKS** base colours selected for their cleanliness of tone, colour strength and suitability for intermixing. It is imperative that matched colours are assessed with activated ink on the actual fabric to be printed.

Main Characteristics

Drying

Must be heat cured. 160 °C for 2-3 minutes.

Thinning

If necessary, thin with up to 5% water.

Wash-up

Wash up with water, if ink has not been allowed to dry into the screen. Dried ink must be washed out with ZTC639 Screen Wash.

Mesh

Monofilament 34-62 Thread/cm for line colours.
Monofilament 90 Thread/cm for trichromatic printing.

Stencil Type

Stencil must be water resistant. For optimum stencil life treat with Stencil Waterproofing Agent **EM-HAR**.

Recommended: EM-TEX or **EM-OPT** with **EM-SENS** Diazo Sensitiser.

Coverage and Mesh No.

Up to 10-14 m²/kg. No. 43

Applications

T-shirts, sports and fashion wear.

Fabrics

100% Cotton. Only fabrics specifically prepared for discharge printing.

Colour Range

16 including an optic white, The **ICONINKS** Matching System trichromatics and extender base.

Properties

Brilliant colours - even on dark garments.
Exceptionally soft handle.
Excellent wet-on-wet printability.
Good wash and dry clean resistance.
Ironable.

IMPORTANT : Stir well before every use. If a fibre blend is used that requires more than one family of dyestuff, the possibility of incomplete discharge is increased. It is essential that all batches of fabric are pre-tested under production conditions to ensure that acceptable results and fastness are achieved.

Special Matches

Matches can be supplied against prints, wet ink samples or to PANTONE®* references, British Standard, 'HKS' or 'Munsell'. A sample of the substrate to be printed with the number and type of mesh to be used as well as other relevant data should be attached to orders.

Minimum quantity 5 kg.

Ancillary Products

During printing, fabrics have to be held to the table by means of a pressure sensitive adhesive to ensure good definition is obtained. FlashFix and T-Fix Extra Spray Adhesives are suitable for this purpose.

(See relevant Product Information Sheets).

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Safety and Handling

IcoCharge DC:

- Is formulated to be free from any chemicals toxic to health, carcinogenic, mutagenic or reprotoxic according to Directive 67/548/EC.
 - Is formulated free from lead and other heavy metals and is tested to comply with the EN71-3: 1995 Toy Safety Standard.
- Comprehensive information on the safety and handling of **IcoCharge DC** screen inks is given in the appropriate **ICONINKS** Safety Data Sheets, available on request.

Öko-Tex Standard 100

Contact your local **ICONINKS** supplier for the latest information concerning the compliance of inks.

ICONINKS Limited

- Has certification to the International Standard ISO 9001
- Is committed to minimising the risk to users of our products, and also to minimising the impact of our activities on the environment, from formulation through to production and supply.
- Research & Development team work to an in house Health, Safety and Environmental policy with the aim of proactively developing products with the least impact on health, safety and the environment.
- Regularly review and monitor our impacts and activities, setting objectives and targets as part of a continual improvement process.
- Is committed to reducing waste through better use of raw materials, energy, water, re-use and recycling.

Colour Range

IcoCharge DC inks are available in white and clear plus water based **IcoTex Pigment WP** color concentrate.

DC-025 Optic White does not share the same wet-on-wet print properties as the other colours. It should be printed last down.

DC-381 Extender Base is also available for mixing into any colours where a lower colour strength is required.

IcoCharge DC

DC-021 White

DC-025 Optic White

DC-381 Extender Base

Available in 15 kg containers

WP-001 IcoTex Pigment WP Black

WP-021 IcoTex Pigment WP White

WP-046 IcoTex Pigment WP Golden Yellow

WP-057 IcoTex Pigment WP Primrose

WP-103 IcoTex Pigment WP Orange

WP-122 IcoTex Pigment WP Scarlet

WP-126 IcoTex Pigment WP Magenta

WP-132 IcoTex Pigment WP Violet

WP-152 IcoTex Pigment WP Brick Red

WP-153 IcoTex Pigment WP Carmine

WP-154 IcoTex Pigment WP Fuchsia

WP-218 IcoTex Pigment WP Azure

WP-219 IcoTex Pigment WP Oxford Blue

WP-315 IcoTex Pigment WP Emerald Green

WP-316 IcoTex Pigment WP Sea Green

WP-343 IcoTex Pigment WP Brown

Available in 1 kg containers

IcoCharge DC Activator

DC-747 IcoCharge DC Activator

Available in 1 kg containers

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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