



Pröll KG
P.O. Box 4 29
D-91773 Weissenburg i. Bay.
Germany
Phone: +49 9141 906-0
Fax: +49 9141 906-49
E-mail: info@proell.de
Internet: www.proell.de

NORIPHAN® HTR 3D INK

Magnetic Effect Screen Printing Ink

Color Shades

Silver

NORIPHAN® HTR 750

Other shades are possible when using the Basic Colors in NORIPHAN® HTR to develop color options such as:

Metallic Green
Metallic Blue

NORIPHAN® HTR 670/046
NORIPHAN® HTR 570/065

Printing Process

The corresponding Technical Information for NORIPHAN® HTR is basically valid for NORIPHAN® HTR 3D INK and should be referenced for information concerning printing as well as drying, post curing, forming and injection molding.

Fabric

100-40 Y threads/cm (255-40 threads/inch) or coarser.

3D Effect

To achieve the 3D effect follow the below processing steps:

1. Screen print the NORIPHAN® HTR 3D INK onto an appropriate substrate (e.g. PC or PMMA films).
2. Place the freshly printed substrate while the ink is still liquid into the magnetic field produced by an electromagnet or permanent magnet with the design of your choice. An orientation of the particles will become visible and will correspond to the magnetic field design.
3. Place the newly printed image into a hot air dryer to fix the orientation of the particles.

Supplementary Technical Information – NORIPHAN® HTR 8/2007

Additional Information

Adding retarder extends the period in which the pigment particles are free to move and can orient towards the magnetic field by about 10 to 20 seconds.

Further requirements to guarantee process stability:

- constant magnetic field from the magnetic source
- stable climate during the process
- constant distances between wet ink layer and magnetic source as well as a consistent placement of the prints within the magnetic field
- constant work flow concerning time, placement and speed of the magnetization between printing and the drying process
- fixed magnetic source close to the conveyor belt to produce line structures
- reproductive work flow e.g. with robotic handling (carrying the magnetic device)

Considering all requirements in the Film Insert Molding process, FIM/IMD, (mentioned in the Technical Information NORIPHAN® HTR) forming and subsequent injection molding is possible in general but can cause a slight change of the three-dimensional effect especially in deep formed parts and in parts with severe gating with high resin friction.

The suitability of NORIPHAN® HTR 3D INK for a particular project has to be checked individually by extensive pre-tests.

The information contained in the technical information/instruction sheets or other product information sheets is based on product testing conducted by Pröll. Because printing and environmental factors critically affect each individual ink application, the above mentioned information and instructions represent only general recommendations concerning product characteristics and directions for use and should not be construed as representing express warranties regarding the product. The information and instructions in no way release the purchaser from his obligation to verify and test the inks and their application for the specific request, regarding: product characteristics, weather resistance, mixing proportions, gloss, thinning, special mixtures, printability, drying speed, cleaning, effects on or of other materials to be contacted and safety precautions. All details contained in the instruction sheet "General Information on Screen Printing Inks" are to be considered. The further manufacture and use of products containing our inks by the purchaser takes place beyond our control, and the responsibility for further application and use of our product resides solely with the purchaser. Pröll disclaims any warranties, express or implied.

This information supersedes all previous technical information.