

HYDROFILM 4000

Water based ink series
designed for film printing



HYDROFILM 4000

Properties

- Adhesion to wide range of materials
- Excellent Colour strength
- Good drying properties combined with press stability
- Clean printing with better ink lay down
- Optimum print viscosity, excellent pH and viscosity stability



HYDROFILM 4000

Portfolio

- Process colours
- Pantone Basic Colours
 - HMFXXXXX Conventional Strength
- Extender
 - HMF00061 as needed to reduce colour strength



HYDROFILM 4000

Density – Process inks & others

- Process Printing (HMF Process)
 - 4 colour densities matched with 240 – 320 l/cm; 1.5 – 4.0 cm³/m² anilox
- Line & solid printing (HMF Pantone inks)
 - Pantone colors matched with 140- 180 l/cm; 5 – 6.0 cm³/m² anilox
- Compatible with most of Flexo plates available in market



HYDROFILM 4000

Printing Parameters

- Process Printing: up to 150 m / min.
- Hydrofilm 4000 remains open with sharp dots over long runs as long as pH is maintained between 9.0 and 9.5
- Temperature of the dryer should not be lower than 50°C (80° F) and it is important to maintain good air flow in order to prevent humid air from remaining in the dryer. Presses equipped with both IR and hot air dryers may allow for higher press speeds



HYDROFILM 4000

Printing Parameters contd.

- Printing Presses
 - Inks will work on all existing narrow web Flexo presses.
- Doctor Blades / Plates
 - Doctor blades are strongly recommended.
 - Chambered or conventional blades can be used.
 - Anilox rollers with a cell angle of 60° will improve the transfer of ink from cell
- CLW00001 is *recommended* Cleaner



Hydrofilm 4000

Works on several PS Film

- TC-PP Silver Raflatac
- TC-PP-3 Raflatac
- TC-PE and PE Raflatac
- PE White Fasson
- Fasclear Fasson
- Primax Fasson
- PP TC Fasson
- PP60 Fasson
- PE Silver Fasson
- PVC Matt Fasson
- Raflex Raflatac
- TC-PP Ritrama
- PE Matt Fasson
- Transp PE Panoval
- Polyester White Raflatac



Waterbased flexo

Material	Hydrokett 2000	Hydrofilm 4000	Thermokett TC
PE	••	•••	•
PE TC	•••	•••	••
PP	•	•••	-
PP TC	••	•••	•
PVC	•	•••	-
PET	•	•••	-
BOPP	-	•••	-
••• Highly recommended •• Recommended • Limited use - Not recommended			



HYDROFILM 4000

- To get optimal adhesion
 - Follow recommendations from substrate supplier
 - Surface tension needs to be above 38 dyne/cm
 - Use corona treatment if needed
 - If top coated substrates are corona treated water resistance can become bad
 - As flexo is a “kiss” printing process is it very important to optimize the combination of anilox roller, plate and tape to get the optimal lay down which will enhance the adhesion
 - Optimal condition for humidity is 20-40%
 - It is very important to see to that the ink is completely dried as this affects the adhesion and water resistance



HYDROFILM 4000

Combination printing

- Hydrofilm 4000 can be used in conjunction with other printing processes like UV Rotary screen.
- This ink can also be printed in combination with other Flint Group Narrow Web water base ink systems.
- When printing over screen inks, Flint Group Narrow Web recommends "Combiwhite" USW90001, designed for over printing.
- Hydrofilm 4000 system can be overprinted with solvent-based, water-Based and UV coatings.



HYDROFILM 4000

Additives

HMF00102	Reducer	1% - 5%
HAW00105	Refresher	3% - 5%
HMF00103	Retarder	1% - 5%
HAW00107	Defoamer	1% - 2%
HAW00108	Wax additive	1% - 3%
HAW00100	Anti drying additive	
HAW00133	Slip additive	

Please refer to "Technical Data sheet" for recommendation of above additives



HYDROFILM 4000

EHS information

- Complies with TSCA
- Complies with CONEG, ASTM F963-96a
- Dispose in accordance with local regulations
- Material Safety Data Sheets available upon request
- Contact HSE department for further information



Hydrofilm 4000

All you need for printing synthetic substrates

- Excellent adhesion to a wide range of materials
- Excellent Colour Strength and press stability
- Easy to use and low maintenance
- Good drying properties
- Available press ready at optimal viscosity
- Higher densities allows to print with finer anilox and less ink usage
- Excellent for combination printing with other Flint Group Narrow web water based inks, CombiWhite, UV Flexo inks, water based and UV coatings



HYDROFILM 4000

Please call your local Flint Group Narrow
Web representative for Samples, Technical
Literature and Material Safety Data Sheets

www.narrowweb.flintgrp.com

