



Technische Steekkaart
 Fiche Technique
 Technisches Merkblatt
 Technical Data Sheet

EXCURE ADHESIVES FOR COLD FOILING

CHARACTERISTIC

These UV adhesives are suitable for cold foiling.

SHORT EXPLANATION OF COLD FOILING PROCESS

A UV curable adhesive is printed onto the substrate either via the letterpress or the flexo process. The handling of our products does not require special machinery except of a laminating station and a winding station. After the print of the adhesive, a foil is applied on top of the adhesive and passes through the UV lamp in contact with the wet adhesive. The UV light penetrates through the carrier foil and the metallic layer and cures the adhesive. In the last step, the carrier foil is peeled off from the substrate leaving the foiled image on the areas printed with the adhesive.

ADVANTAGES OF COLD FOILING

- ☞ No hot stamping unit is necessary
- ☞ No hot stamping experience is required
- ☞ No etched die needed
- ☞ Minimal capital costs for in-line foiling
- ☞ Dramatically reduced image preparation time
- ☞ Use of ordinary printing plates
- ☞ Economic advantage for small foiling jobs
- ☞ Register tolerances can be controlled easily

Article	Viscosity 21°C/DIN 4mm	Cure	Property	
			Chemistry	Application
<u>Flexo:</u>				
EXC90505	90 – 120"	Slow	Radical	Flexo
EXC90508	100 – 125" (DIN 6mm)	Fast	Radical	Heated flexo
<u>Letterpress:</u>				
EXC90506	90 – 120" (DIN 6mm)	Slow	Radical	For letterpress

APPLICATION AREA

- In general, most reel-fed label printing machines with laminating or rotary stamping units are suitable for this process*

REMARKS

- ★ *The lay-down of the adhesives depends very much on the application process and on the substrate. For the flexo application an anilox with a cell volume of around 6 to 8 cm³ is recommended.*
- ★ *For the UV curing, you can use medium-pressure and high-pressure mercury lamps. The UV-output should be adjustable to the printing speed. The higher the printing speed, the higher should be the output of the lamp. Normally, a UV energy of 100 - 200 W/cm should be sufficient. Common printing speeds are 40 - 70 m/min.*
- ★ *The distances between printing unit, UV lamp, stamping unit and detachment station should be kept as short as possible to prevent creasing. The ideal machine layout should have a total distance between printing unit and detachment unit of not more than one meter.*
- ★ *The detachment angle of the carrier foil has an influence on the stamping result as well. Usually, a low angle gives better results than a steep angle.*
- ★ *Please be aware that a bad printing result of the adhesive leads inevitably to a bad stamping result.*
- ★ *Stir well before use.*

SUITABLE FOILS

An optimal transfer is achieved with foils with good detachment properties, especially at high printing speeds. A harder detachment leads to sharper edges especially when printing fine lines. However, the risk of an incomplete transfer increases with these foils.

The achievable results depend on the foil, the UV adhesive, the printing and laminating / delaminating stations and of course on the machine layout and settings. We urgently recommend to do test runs with different foils before running into production.

PACKAGING

- 5 kg drums*
- 10 kg drums*
- 25 kg drums*
- 200 kg barrels*
- 1000 kg containers*

PRODUCT SAFETY

*This varnish (or these inks) is (are) **NOT** suitable for **FOOD applications** unless a proper risk assessment proves that its use is safe (e.g. if the process rules out the possibility of set-off in the reel or stack AND if the design of the final printed article ensures reliable functional barrier properties to migration). For further information please contact our local sales team or www.toyoink.eu.*