



UV Drip Off

CHARACTERISTIC

Drip Off represents an efficient and eye-catching method to achieve matt/gloss effects or matt/structure effects in a single process with just one coating unit.

The principle: in the last ink duct, a primer is partially used. Out of the coating unit, a high gloss coating is applied full area. Where primer and high gloss coating meet, a repellent effect is realized. Where the primer has been left out, you realize high gloss surfaces. In this way, you can produce fine printing motives without a spot coating plate.

Depending on the primer, application amount and the setting of your printing press (power of UV lamps), you can achieve medium to strong structures which provide a highly visual and haptical difference compared to the high gloss coating. The systems are characterized by a very good scratch and scuff resistance.

To create this you get a nice Drip Off effect with the EXC90212 as Drip Off primer and the EXC90007 as high gloss coating, both radical UV varnishes.

PROPERTIES

- ☞ Both UV varnishes are formulated with low toxic ingredients
- ☞ Low in wet odour and very low odour in the cured print
- ☞ Both UV varnishes are available press ready at optimal viscosity
- ☞ Optimal resistance properties will be obtained 24 hours after printing

| Article | Viscosity 21°C/DIN 4mm | Cure | Slip | Gloss | Rub / scuff | Property |
|----------|---------------------------|------|------|-------|-------------|---------------|
| EXC90007 | 35 - 50 | High | Low | High | Medium | Gloss coating |

| Article | Viscosity 21°C Poise | Cure | Slip | Gloss | Rub / scuff | Property |
|----------|----------------------------|------|--------|-------------|-------------|-------------------------------|
| EXC90212 | 150 - 200 | High | High | High/Medium | High | Drip off primer |
| EXC90220 | 240 - 270 | High | Medium | Medium | High | Finer structure, more matt |




TYPES

- *Radical chemistry*

APPLICATION AREA

- Wet offset (EXC90212)*
- Varnishing machine/coaters (EXC90007)*

SUITABLE SUBSTRATES (min. surface tension 38 dynes/cm)

-  *All kinds of paper and board*
-  *Certain corona treated PE-films*
-  *Other substrates: to be tested*

PROCESSING RECOMMENDATIONS

- *Stir well before use.*
- *Recommended film weight (for primer): 2 – 4 g/m²/wet.*
- *The printing inks should be suitable for coating.*
- *The optical appearance of the matt, glossy or trickle down effect is defined in the last ink duct of the offset printing plate and depends on film weight of primer (EXC90212) and following coating (EXC90007). The areas which should appear glossy aren't be coated with the primer. The effect varnish (EXC90212) is applied in the last ink duct. In the following coating unit a suitable coating (EXC90007) will be applied full area with a suitable coating plate. Rejections and trickle down effects appear on areas where the sheet is coated with primer. Small coating drops are the result which form an open and uneven coating layer where the light is reflected irregularly and it appears matt then. On the uncoated areas (free of primer) the gloss coating creates an even coating film. The full area overcoating with a gloss coating offers a sufficient rub resistance also on the areas which appear matt.*
- *The property profile of the coating film is given in case of a complete curing. The curing depends on the efficiency of lamps, life of UV lamps, machinery speed, general conditions of the UV unit (reflectors, etc.), temperature and the distance from the UV unit to the substrate. We recommend to clean regularly the reflectors and - if necessary - to change the lamps in case of a drop in lamp efficiency.*
- *The complete property profile of the coating film (with regard to rub resistance and slip properties) is given after 24 hours in case of a complete curing.*
- *The total structure of substrate/printing ink/varnish must be cured sufficiently before processing and should be checked during the process.*
- *Glue flaps should be uncoated.*
- *The complete property profile of the coating film is given in case of a complete drying.*

REMARKS

- ★ *Both EPDM and nitril rollers are suitable when using our Excure varnishes.*
- ★ *Shelf life: all UV varnishes have a 12-month shelf life guarantee. This guarantee covers 12 months from the date of manufacture (which is mentioned on the label). In order to give this guarantee, certain recommendations must be followed: UV varnishes should be kept on stock at temperatures between 15 – 20°C and they should not be exposed to direct sunlight. If possible, store the varnish in a dark room.*
- ★ *Stir well before use.*

PACKAGING

EXC90212

- 1 kg plastic pails
- 3 kg plastic pails
- 10 kg plastic pails

EXC90220

- 1 kg plastic pails
- 3 kg plastic pails
- 25 kg metal pails

EXC90007

- 1 kg plastic pails
- 5 kg plastic pails
- 10 kg plastic pails
- 25 kg plastic pails
- 200 kg drums
- 600 kg drums
- 1000 kg containers

ADDITIVES

- | | | |
|----------------------------------|-------------------------|----------|
| ◆ Wash up solution | for manual washing | EXC10810 |
| | for automatic washing | EXC10800 |
| | labelling and reg. free | EXC10820 |
| ◆ Photoinitiator | | EXC10708 |
| ◆ Thinner | | EXC10705 |
| ◆ Slip agent | | EXC10005 |
| ◆ Surface tension pen (38 dynes) | | 602038 |

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.toyoinkarets.com.