ECS setting the standards in pressroom solutions

# Technical Data Sheet

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## U330
## UV Drip Off Varnish

**Product Description**

- Ultra Violet Light Curable High Gloss Varnish with good reactivity especially suited for use as a topcoat varnish used in the drip off application along with a suitable Matt Litho UV Duct Varnish.

**Application**

- Sheetfed offset via coating unit (anilox or roller coater systems).
- Inline over UV Litho Varnish and either UV or Hybrid Inks (wet-on-wet)
- Offline over conventional inks (wet-on-dry)
- Curing: 120-200 W/cm wavelength 240-380nm. Adequate curing of the varnish is also dependent on the efficiency and age of the lamps and processing speed, as well as direction of the lamps and proximity to the substrate.

**Product specification**

- Viscosity: 23-28secs Din4@25C
- Solids: ~100%
- Slip: N/A

**Properties**

| | |
|---|---|
| Gloss | |
| Curing/Reactivity | |
| Rub Resistance | |
| Runability | |
| Surface Smoothness | |

**Post-Processing suitability**

| | |
|---|---|
| Gluable: | Recommended for this varnish when used alone – may vary over Litho Varnish |
| Hot Foiling: | Recommended for this varnish when used alone – may vary over Litho Varnish |

**Special Properties**

- Non-yellowing
- Reticulation varnish gives excellent matt/gloss contrast when used correctly.

**Substrate**

- Suitable for most coated board and paper substrates.
- Suitability to metallised boards and plastic materials should be trialled as adhesion can be dependent on surface tension of the intended substrate.

**Food printing status**

- This formulation is not recommended for direct contact with foodstuffs or where Low Migration is a requirement.
- It may only be used as directed for outer food packaging providing the foodstuff is protected against migration by a completely impermeable functional barrier packaging (according to regulation 1935/2004/EC), and the varnish is completely cured during printing.
- If used for food packaging a migration analysis according to regional/national/international food law should be conducted on the completed packaging and it is ultimately the responsibility of the end producer who brings the product into circulation to ensure it meets the relevant regulations.

**Recommendations**

- Stir well before use
- Wet film weight 3-6gsm for most applications.
- Inks should ideally be alkali resistant and wax free for optimum results. Testing ink suitability prior to production runs is recommended.
- Test substrate suitability and check over various inks and UV absorbency can vary depending on the ink choice and colour, that may appear as an under cured system or poor rub resistance.
- Run initial trials varying vanish film weight as well as film weight of Matt Litho Varnish initially until the required result is achieved. Different printers may have different requirements in terms of extremity of the effect required.
- When applying offline allow minimum 24hours for the inks to set before varnishing. For difficult inks such as metallics allow a minimum of 48hours.

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- Maintain the UV curing system regularly for best results. This includes cleaning of reflectors and replacing aged lamps appropriately.
- Ensure return pipes are positioned correctly to avoid unnecessary aeration of the varnish prior to use. Down the side of the barrel and slightly beneath the varnish surface is ideal – also check no holes are evident in the pipeline.
- As a measure of best practice and if possible avoid coating glue folds as a greater bond can usually be achieved over unprinted paper/board.
- For Gluing/Foiling/Laminating/UV Varnishing best results are a combination of many factors so always test initial acceptance for any given job.
- Avoid polluting the varnish with washing fluids or other varnishes.
- Optimize settings as overall curing is dependent on efficiency of lamps, running speed, distance between UV lamps and printwork, temperature and general condition of the UV housing unit.

**Packaging**

- 5kg, 10kg, 25kg, 125kg, 150kg, 200kg, 600kg and 1000kg (all darkened containers to avoid sunlight exposure).

**Storage and Shelf Life**

- Store between 5-30°C ideally.
- Protect from direct sunlight.
- If left unopened and kept in the correct conditions this product has a shelf life of 6 months from D.O.M.
- After opening use up as soon as possible.
- Replace lids on containers when coating not in use.
- The varnish may thicken if stored incorrectly or for a longer period of time.

**Cleaning**

- Clean machines and tools immediately with alcohol or a suitable UV wash solution after use to avoid coating drying and becoming more difficult to remove.
- Pipelines should be contaminant free before commencing printing so flush through with dedicated UV wash as required. Consult our technical team for advice on recommended wash solutions.

**Health and Safety**

- Have eye bath station nearby. If varnish gets into eyes bath and flush well and try to keep the eyelids open. Avoid walking outside into the sunlight as this can harden the varnish.
- If varnish contacts skin, clean well with soap and water. Contaminated clothing should be removed as soon as possible.
- All materials used in the manufacture of this product meet the requirements of EU Legislation Regulation (EC) No 1907/2006 REACH.
- Consult the MSDS for more detailed information.
- Do not allow coating to enter the water system – many UV Varnishes such as this are considered harmful to aquatic life.
- Dispose of according to local/regional/national regulations concerning disposal of hazardous waste.

**Note**

- The information contained in this data sheet corresponds with our current knowledge and experience. The liability for the application and processing of our products lies with the buyer, who is also responsible for observing the third party rights.
- We reserve the right to alter any of these details as a result of technical or manufacturing developments.
- This datasheet does not claim to be complete.
- *For any further information please contact the technical department at ECS (Nottingham) LTD*

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