

SPECIAL EFFECT INKS · SCREEN AND PAD PRINTING

UniGlow Structure, 3D, Writeable and Scent Effects

Gloss, 3D / Braille, chalk-board, signature-field and scented screen inks

Uniform effect inks for screen and pad printing – visual and haptic effects that catch the eye, strengthen the emotional message and add product safety

TDS NO.	UF/TDS/UNIGLOW-STRUC
REVISION	01
ISSUE DATE	September 2026
STATUS	Current issue
PRODUCT TYPE	Effect ink / pigment system

PRODUCT Effect ink	PROCESS Screen (and pad) printing	SYSTEMS Solvent-based and UV-curable	MESH 110 – 230 tpi, particle-size dependent	PACK 1 kg · 5 kg
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01 PRODUCT DESCRIPTION

Gloss effects: in the modern packaging and give-away markets, a very noble effect is attained via spot-varnishing which combines high-gloss coatings with matt surfaces. The gloss level of an ink or an overprint varnish is determined by the transparency of the binder, the additives used for the formulation, the printed ink film thickness and the roughness of the substrate surface. High-gloss effects are a typical domain of screen printing; the best effect can be achieved with UV-curable ink systems (UVSR series).

3D effects are well known from dome-coating. Screen printing is used to achieve symbols or graphic characters with a thickness of 30 – 250 µm. The resulting character is clearly perceptible and usually transparent, as known with the triangular product safety symbol, Braille printing or other graphical effects. Uniform's universal Braille varnishes are UniFeel TC033 and UniFeel TC038; UniFeel RP-042 and UniFeel RP-045 are recommended for relief printing.

Writeable inks (only realisable with screen printing) usually have a matt and quite rough surface, are very resistant and can be used for different applications: chalk-board ink (Libraspeed LIS 768 chalk-board ink green, Libraspeed LIS 773 chalk-board ink black) and signature fields for identity cards (Libramatt LIM 170 opaque white). Further requirements like laser-writeable, e.g. for the pharmaceutical industry, can be fulfilled by the Special Colour department.

Scent effects: everyone has seen and probably smelled test perfume strips included in magazines. A fragrance is released when rubbing the surface; the friction causes the extremely tiny scent capsules to burst and liberate their fragrance. Various particle sizes are available depending on the encapsulation technique; a minimum order quantity of 5 kg is required.

02 FEATURES AND BENEFITS

- Gloss coatings UVSR-80 to UVSR-86 (screen, UV)
- 3D and Braille varnishes UniFeel TC033 / TC038; relief RP-042 / RP-045
- Chalk-board inks Libraspeed LIS 768 (green), LIS 773 (black); signature white Libramatt LIM 170
- Scent inks with encapsulated fragrances (5 kg minimum)

03 TECHNICAL DETAILS AND APPLICATION CONDITIONS

Parameter	Recommendation
Mesh	110 – 230 tpi (43 – 91 t/cm); tension 20 – 35 N/cm
Squeegee	Durometer 60 – 70 shore, 60/90/60
Stencil	Water-resistant, direct, 2 over 2
Flash and cure	Flash 88 – 93 °C ink temperature; cure 1 minute at 160 °C (UV grades: 150 – 300 mJ/cm ²)
Additives	Retarder 3 % max; thickener 1 % max (all percentages by weight)
Storage	5 – 40 °C (37 – 104 °F); use within one year; keep containers sealed at all times

Parameter	Recommendation
Clean-up	UniClear screen wash
Health and safety	See the Safety Data Sheet

04 PRODUCT RANGE

Code	Description
UVSR-80	UniCure 80 SR Gloss VSH
UVSR-81	UniCure 81 SR Gloss VSH
UVSR-82	UniCure 82 SR Gloss VSH
UVSR-83	UniCure 83 SR Gloss VSH
UVSR-84	UniCure 84 SR PHOTO VSH
UVSR-85	UniCure 85 SR CRYSTAL UV VSH
UVSR-86	UniCure 86 SR Bubble Coat
UVSR-89	UniCure 89 SR Gloss VSH
UniFeel TC033 / TC038	Braille and 3D varnishes
UniFeel RP-042 / RP-045	Relief printing varnishes
LIS 768 / LIS 773	Chalk-board inks, green / black (mesh 68-64)
LIM 170	Signature-field opaque white (mesh 120-34)

Further shades, particle sizes and carrier systems on request. Test each effect on the actual substrate and with the intended over-varnish before production.

05 TROUBLESHOOTING GUIDE

Observation	Likely cause	Corrective action
Ink dries in the screen	Fast solvent loss; pot life exceeded (2K); Add retarder up to 3 %; keep only the required high pressroom temperature or air movement	quantity on the screen; shield the press from draughts; mix 2K ink in batches for the pot life
Poor adhesion	Wrong ink for the substrate; low surface energy or contaminated surface; incomplete drying or cure	Check substrate and treatment (≥ 38 dyn/cm on polyolefins); degrease; dry / cure to the stated schedule; add hardener where the 2K version is specified
Blocking in the stack	Solvent retained; stacked too soon or too hot	Extend drying; use jet dryer; allow to cool; interleave
Orange peel or poor flow	Ink too viscous; mesh too coarse; out-of-contact too high	Thin to press viscosity; use finer mesh; reduce off-contact and squeegee pressure
Pinholes, fish eyes	Silicone or oil on substrate or screen; contaminated thinner	Clean substrate with the approved cleaner; use only UF thinners and retarders
Loss of opacity	Mesh too fine; ink over-thinned	Use coarser mesh; reduce thinner; use the high-opacity grade
Colour change or bleeding after coating	Non-resistant pigment under an aggressive over-varnish	Use the resist grade; test every colour with the intended varnish

06 CLEAN-UP

Clean screens, squeegees and tools with UniClear screen wash or the recommended UF cleaner immediately after printing. Two-component inks must be cleaned within the pot life – cured 2K ink cannot be removed from the mesh. Use closed cleaning systems where available and dispose of used solvent through a licensed contractor.

07 STORAGE AND SHELF LIFE

Container	Original, tightly closed containers; keep closed on press to limit solvent loss and skinning.
Temperature	5 – 30 °C in a cool, dry, well-ventilated store away from heat, sparks and open flame, in accordance with the local regulations for flammable liquids.
Two-component grades	Store the hardener separately in its sealed container; hardeners are moisture-sensitive – close immediately after use.
Shelf life	Twelve (12) months from the date of manufacture in unopened containers (hardener: 6 months). Stir well before use; check viscosity and freedom from skin before using product beyond shelf life.
Stock rotation	First in, first out; keep label and batch number legible.

08 HANDLING, HEALTH AND SAFETY

UniGlow Structure, 3D, Writeable and Scent Effects is a solvent-based product: flammable, with solvent vapour that is heavier than air. Handle only in well-ventilated areas away from ignition sources, and read the Safety Data Sheet before use.

Personal protection	Nitrile gloves, safety glasses, antistatic work clothing; organic-vapour respirator (filter type A) where ventilation is insufficient.
Skin and eyes	Avoid contact. Wash skin with soap and water; rinse eyes with plenty of water for 15 minutes and seek medical advice.
Ventilation	Local exhaust at the press, drying tunnel and screen-washing area; keep vapour concentration below the exposure limits and below 10 % of the lower explosive limit.
Fire	Flammable liquid: keep away from heat, sparks and open flames; earth equipment; no smoking. Extinguish with foam, dry powder or CO ₂ .
Two-component hardener	Contains polyisocyanate: may cause allergy or asthma symptoms if inhaled – avoid vapour and spray mist; sensitised persons must not handle the product.
Spills	Remove ignition sources; absorb with inert material; collect in closed metal containers; do not flush to drain.
Safety Data Sheet	Read the UniGlow Structure, 3D, Writeable and Scent Effects Safety Data Sheet before use. Application must comply with local and national regulations.

09 WASTE DISPOSAL

Liquid residues, washings and contaminated absorbent must be disposed of through a licensed contractor in accordance with local and national regulations. Do not discharge product or washings to drains or watercourses. Empty containers may be recycled after cleaning where local rules allow.

10 REGULATORY AND END-USE INFORMATION

Food packaging	Not intended for food packaging unless stated on this sheet.
Heavy metals	Pigments free from lead, cadmium, mercury and hexavalent chromium; RoHS 2011/65/EU compliant.

Raw materials	Selected in accordance with the EuPIA Charter on raw material selection; REACH-registered inputs.
VOC	Contains organic solvents; VOC content on the Safety Data Sheet.
Transport classification	UN 1210 Printing ink, Class 3, Packing Group III (flash point dependent – verify against the current SDS).
Pigment loading	Effect pigments are supplied as concentrates or press-ready inks; pigment loading is stated per item.

11 DISCLAIMER AND REVISION HISTORY

The information in this data sheet has been compiled from laboratory experience and internal standardised tests with virgin, standard packaging-grade substrates and is given in good faith. The performance of the product and its suitability for the customer's purpose depend on the conditions of use, the equipment and the materials being printed, which are beyond our control; no statement in this sheet should be construed as a guarantee of performance in a specific application, and Uniform Industries accepts no responsibility for abnormal results obtained on lower-grade or sub-standard substrates. Customers should satisfy themselves, by their own trials, that the product meets their requirements in all respects before commencing production, and should carry out a full evaluation of performance and safety-in-use before commercial application. Uniform Industries' liability for printing-related problems clearly attributable to incompatibility with the ink system it recommended is limited to replacement of the product consumed. All sales are subject to our standard terms and conditions of sale.

Revision	Date	Change
01	September 2026	First issue in the consolidated data-sheet format, compiled from the product catalogue and technical literature.