UVF Series UV Offset Color Inks
Technology Data Sheet

1. Product Overview

Premium UV sheet-fed offset process and spot color inks engineered for high-end packaging on paper and non-porous film substrates. Features high color strength, excellent ink-water balance, rapid UV curing response, superior dot definition, and outstanding overprintability. Primarily designed for cigarette packaging, liquor cartons, cosmetics, and commercial printing.

2. Product Features

- **High Color Strength & Pigment Loading:** Finely dispersed pigments delivering vivid saturation and true color fidelity;
- **Fast UV Curing Speed:** High photochemical reactivity, running at 7,000–12,000 sheets/hour;
- **Strong Substrate Adhesion & Flexibility:** Robust adhesion across gold/silver board, SBS, PET, and BOPP; zero flaking during die-cutting;
- **Excellent Trap & Overprint Suitability:** Crisp multi-color trapping with sharp dot reproduction;
- **Wide Water-Ink Window:** Resists emulsification, ensuring clean runs without scumming or misting;
- **Low Odor & Eco-Friendly:** Complete UV cure with minimal volatile residue.

3. Suitable Substrates

Gold/silver board, SBS ivory board, coated paper, PET, BOPP films.

4. Technical Specifications

Property	Unit	Typical Value	Test Method / Notes
Appearance & Color	-	Colored pasty ink	Visual inspection
Viscosity	s		
Solid Content	%		
Gloss (60°)	GU	40–60	60° angle, GB/T 13217.2-2024

5. Application Guidelines

Ink Preparation	Stir thoroughly before running; maintain proper ink-water balance.
Plate / Cylinder Specs	PS/CTP plates with high-grade UV offset blankets.
Dilution Ratio	Ready-to-use as supplied; micro-add HCOLOR UV reducer if necessary.
Press Viscosity	Ready-to-use paste.
Press Speed	7,000–12,000 sheets/hour.
Drying Method	High-pressure mercury UV lamp system.
Equipment Cleaning	Clean with dedicated UV wash or anhydrous ethanol.
Application Note	Ensure complete cure before downstream varnishing or hot stamping.

6. Regulatory & Safety

Regulatory Compliance	Complies with RoHS and REACH (SVHC) directives.
Food Contact Statement	Formulated for non-direct food contact outer packaging only. For specific food-contact migration compliance, please contact HCOLOR technical department for dedicated project evaluation.
Usage Note	
Safety Data Sheet (SDS)	Available upon customer request.
User Responsibility	Users must independently verify regulatory compliance, performance, and fitness for intended purpose under actual operational conditions.

7. Packaging & Storage

Standard Packaging	20 kg / 25 kg plastic pails; 1,000 kg IBC containers (custom packaging available upon request).
Storage Conditions	Store strictly protected from light in tightly sealed containers. Keep in a dry, cool, and well-ventilated warehouse at 5–25°C, away from fire, heat sources, and strong oxidizers. Strictly avoid direct exposure to sunlight and workshop fluorescent lighting to prevent dark polymerization.
Shelf Life	12 months from production date in unopened original containers.
Post-Opening Care	Reseal immediately and tightly after dispensing; recommended to use within 6 months.

8. Typical Product Grades

Product Code	Key Features	Suitable Substrates	Target Applications
UVF-1010	Opaque White, high opacity, strong adhesion, fast cure	Paper & film substrates	Cigarette packaging, liquor cartons
UVF-2010	Process Yellow, high color strength, fast cure	Paper & film substrates	Cigarette packaging, liquor cartons
UVF-3010	Process Magenta, high color strength, fast cure	Paper & film substrates	Cigarette packaging, liquor cartons
UVF-4010	Process Cyan, high color strength, fast cure	Paper & film substrates	Cigarette packaging, liquor cartons
UVF-5010	Process Black, high density, fast cure	Paper & film substrates	Cigarette packaging, liquor cartons

1. Baseline Platforms & Customization: The products listed above are core baseline platforms proven through extensive commercial mass production. To meet specific press speeds (e.g., ultra-high-speed inline coating), substrate absorbency variations, or demanding rub/crease-crack resistance requirements, HCOLOR provides tailored viscosity adjustments, customized additive packages, and bespoke functional performance development.

2. Specialty Process Integration: If specialized finishes such as drip-off / drip-relief combination effects or tactile matte finishes are required, please contact HCOLOR technical support for a comprehensive turnkey printing formulation.

9. Disclaimer

1. The data are typical values intended for product selection and technical reference only. Unless otherwise agreed in writing, they do not constitute guaranteed specifications.

2. The information contained herein is based on our current knowledge and experience and is provided in good faith for general application guidance only. It does not constitute a legal warranty, guarantee, or binding technical specification. Users are strictly responsible for evaluating and confirming product suitability, process compatibility, and commercial usability under their actual operating conditions and production equipment prior to commercial use.