WLF-A80000 Series Water-Based Flexo Plastic Film Ink
Technology Data Sheet

1. Product Overview

WLF-A80000 Series is an advanced water-based flexographic ink engineered for plastic film packaging. Widely applied in food packaging film bags, courier/express bags, feminine hygiene packaging, baby diapers, and gift wrapping paper. It provides excellent adhesion and transfer on corona-treated BOPP, PET, and PE films, offering stable printability in high-speed flexo converting.

2. Product Features

- **High Color Density:** Rich, vibrant coloration with superior hiding power.
- **Superb Film Adhesion:** Tenacious anchorage on corona-treated plastic films.
- **High-Speed Flexo Stability:** Excellent ink transfer without anilox plugging.
- **Fast Drying:** Rapid moisture and co-solvent evaporation under hot air drying.
- **Sharp Dot Fidelity:** Clean highlights and crisp fine-type definition.
- **Environmental & Hygiene Compliance:** Water-based, low-odor, low-VOC formulation suitable for hygiene packaging.

3. Suitable Substrates

Suitable for plastic film substrates including BOPP, PET, PE, and surface-treated polymer films.

4. Technical Specifications

Property	Unit	Typical Value	Test Method / Notes
Appearance & Color	-	Viscous liquid in various colors	Visual inspection
Viscosity	s	35–65	Zahn #2 cup, 25°C
pH Value	-	8.0–9.0	25°C
Solid Content	%	-	Oven drying, 130°C × 2 h
Gloss (60°)	GU	-	60° angle

5. Application Guidelines

Ink Preparation	Stir thoroughly for 5–10 minutes prior to use. Filtration through ≥200 mesh screen is recommended before loading onto press. 1-pack system; consume promptly after opening.
Plate / Cylinder Specs	Flexo: anilox roll screen 300–600 LPI, cell volume 6–12 BCM, moderate doctor blade pressure.
Dilution Ratio	Deionized water or dedicated aqueous diluent, dilution ratio 5%–10% (adjust based on press speed and target operating viscosity).
Press Viscosity	40–50 s (Zahn #2 cup, 25°C).
Press Speed	80–250 m/min (suitable for high-speed printing; optimize based on press model and drying capacity).
Drying Method	Hot air drying, air temperature 60–90°C; ensure complete drying before rewinding.
Equipment Cleaning	Clean printing plates and ink circulating systems promptly after printing with water or dedicated aqueous cleaning agents to prevent ink drying and clogging.
Application Note	Prior to initial commercial production, thorough trials must be conducted under actual operating conditions to verify ink adhesion, drying profile, and post-finishing compatibility on target substrates.

6. Regulatory & Safety

Regulatory Compliance	Complies with RoHS and REACH (SVHC) directives.
Food Contact Statement	Formulated for external non-food-contact secondary packaging. If specialized food contact compliance or low-migration performance is required, project-specific technical evaluation and formulation confirmation by HCOLOR are required.
Usage Note	VOC content complies with China national standard GB 38507-2020.
Safety Data Sheet (SDS)	Safety Data Sheets (SDS) are available upon request.
User Responsibility	Users must independently verify product suitability, regulatory compliance, and processing performance under actual commercial production conditions prior to full-scale adoption.

7. Packaging & Storage

Standard Packaging	20 kg / 25 kg plastic pails; 1,000 kg IBC containers (custom packaging available upon request).
Storage Conditions	Store tightly sealed in original containers. Keep in a dry, cool, and well-ventilated warehouse at 5–35°C, away from direct sunlight and rain. Strictly protect from freezing; prevent winter frost damage or high-temperature degradation.
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
WLF-A80000 Series	High color density / High-speed press stability	BOPP, PET, PE films	Food packaging film bags / Courier bags / Sanitary napkins / Diapers / Gift wrapping paper

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.