WOF6035-6A Water-Based Gravure Primer Varnish
Technical Data Sheet

1. Product Overview

WOF6035-6A is a specialized water-based gravure primer varnish designed to promote adhesion between metallized substrates and subsequent gravure inks. It provides uniform surface wetting on aluminum foil, metallized transfer paper, and PET laminates, ensuring robust ink anchoring and crease resistance on high-speed gravure lines.

2. Product Features

- **Exceptional Substrate Bonding:** Strong mechanical and chemical anchor onto difficult metallic and polymer film surfaces.
- **Uniform Surface Tension:** Bridges surface energy differentials to ensure subsequent gravure inks print without fisheyes.
- **Fast Hot-Air Drying:** Excellent solvent/water release for high-speed roll-to-roll gravure presses at 80–250 m/min.
- **Tough & Flexible Film:** Withstands deep die-cutting, embossing, and sharp crease folding without delamination.
- **Eco-Friendly Formulation:** Low odor, non-flammable, compliant with China tobacco green packaging standards.

3. Suitable Substrates

Suitable for aluminum foil laminated board, metallized transfer paper, PET film laminates, and coated paperboard.

4. Technical Specifications

Property	Unit	Typical Value	Test Method / Notes
Appearance & Color	-	Transparent to milky white viscous liquid	Visual inspection
Viscosity	s	17–19	Coating Cup #4, 25°C
pH Value	-	8.0–9.0	Precision pH meter, 25°C
Solid Content	%	25±1	Oven method, 130°C × 2 h
Gloss (60°)	GU		

5. Application Guidelines

Ink Preparation	Stir thoroughly for 5–10 minutes; filtration through 200-mesh screen is recommended. 1-pack system.
Plate / Cylinder Specs	Gravure cylinder 150–250 LPI, moderate cell depth, uniform doctor blade pressure.
Dilution Ratio	Dilute with ethanol:deionized water = 4:1 or pure water, addition ratio 5%–20%.
Press Viscosity	17–25 s (Zahn #2 cup, 25°C).
Press Speed	80–250 m/min (fine-tune according to line speed and drying tunnel airflow).
Drying Method	Hot air drying, air temperature 60–90°C; ensure primer film is dry before rewinding.
Equipment Cleaning	Flush cylinder, ink pan, and pump immediately with water after production.
Application Note	Perform adhesion tape test on target substrates before commercial gravure printing.

6. Regulatory & Safety

Regulatory Compliance	Complies with EU RoHS 2.0 (2011/65/EU) and REACH (EC 1907/2006) SVHC candidate list.
Food Contact Statement	
Usage Note	
Safety Data Sheet (SDS)	Comprehensive Safety Data Sheets (SDS) are available upon request from HCOLOR technical support.
User Responsibility	Users must independently confirm process compatibility and compliance under actual commercial conditions.

7. Packaging & Storage

Standard Packaging	Standard packaging: 20 kg plastic drum; custom volumes (1 kg, 5 kg, 200 kg) available upon request.
Storage Conditions	Store tightly sealed in original drums at 5–35°C in a dry, ventilated warehouse; protect from freezing.
Shelf Life	12 months from manufacturing date in unopened original containers.
Post-Opening Care	Reseal containers tightly immediately after use; consume within 6 months to prevent surface skinning.

8. Typical Product Grades

Product Code	Key Features	Suitable Substrates	Target Applications
WOF6035-6A	Gravure ink adhesion promoter / High flexibility / Fast drying	Aluminum foil paper, metallized paper, PET film laminates	Base priming for gravure ink printing on cigarette packaging, premium liquor boxes, cosmetics

1. Baseline Platforms & Customization: The products listed above are core baseline platforms proven through extensive commercial mass production. To meet specific line speeds, substrate surface tension variations, or demanding inter-coat bond strength, HCOLOR provides tailored viscosity adjustments and custom functional performance development.

2. Specialty Process Integration: If integration with functional barrier coatings, high-gloss UV overprint varnishes, or heat-activated adhesives is required, please contact HCOLOR technical support for a comprehensive turnkey formulation solution.

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.