WOF22050A4 Water-Based Gravure Soft-Touch Coating
Technical Data Sheet

1. Product Overview

WOF22050A4 is a high-performance water-based gravure soft-touch overprint coating developed for high-speed rotogravure presses. It imparts a delicate suede-like tactile finish with zero gloss glare and outstanding scratch resistance on paper and composite substrates, designed for tobacco, liquor, and luxury consumer packaging.

2. Product Features

- **Luxurious Tactile Elegance:** Delivers an ultra-soft, warm velvet tactile feel with a refined, glare-free matte appearance.
- **Excellent Scratch & Creep Resistance:** Strong surface hardness prevents fingernail scratches and transit rub marks.
- **High-Speed Gravure Runnability:** Formulated for roll-to-roll gravure presses running at speeds of 80–200 m/min.
- **Smooth Laydown & Anti-Cissing:** Excellent wetting properties eliminate cratering, pinholes, and doctor blade streaking.
- **Eco-Friendly Tobacco Compliance:** Ultra-low VOCs and low odor, fully aligned with green tobacco packaging mandates.

3. Suitable Substrates

Suitable for offset paper, coated art paper, SBS white cardboard, duplex board, metallized transfer paper, and composite paperboards.

4. Technical Specifications

Property	Unit	Typical Value	Test Method / Notes
Appearance & Color	-	Transparent to milky white viscous liquid	Visual inspection
Viscosity	s	60±5	Zahn #2 cup, 25°C
pH Value	-	8.0–9.0	Precision pH meter, 25°C
Solid Content	%	30±1	Oven method, 105°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	Ready to use or dilute with deionized water / ethanol:water = 1:4, addition ratio 5%–15%.
Press Viscosity	17–25 s (Zahn #2 cup, 25°C).
Press Speed	80–200 m/min (fine-tune according to drying tunnel length and hot-air volume).
Drying Method	Hot air impingement drying, air temperature 60–90°C; ensure thorough cure prior to rewinding.
Equipment Cleaning	Flush gravure cylinders, pumps, and pans immediately with water after printing.
Application Note	Validate substrate surface tension and underlying ink dryness before full-scale gravure runs.

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
WOF22050A4	Velvet soft-touch / Deep matte / High scratch resistance	Offset paper, coated paper, SBS board, tipping paper, metallized paper	Cigarette cartons, tipping paper, inner liners, paper cans, luxury gift boxes

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

2. Specialty Process Integration: If integration with UV drip-off primer, specialty tactile effects, or barrier base coatings 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.