WOF22160 Water-Based Screen Soft-Touch Coating
Technical Data Sheet

1. Product Overview

WOF22160 is a water-based screen printing soft-touch overprint coating engineered for flatbed and rotary screen presses. It provides a heavy-build tactile sensation with a warm velvet feel and superior surface durability, widely applied for spot or full-surface tactile embellishments on high-end cartons and specialty covers.

2. Product Features

- **Heavy-Film Tactile Intensity:** Delivers an exceptionally plush, rubbery-velvet touch with high film build.
- **Non-Yellowing Optical Purity:** Transparent matte film preserves underlying vibrant graphic colors without clouding.
- **Excellent Screen Release:** Non-clogging formula with great screen open-time, preventing dry-in during screen printing.
- **High Mar & Chemical Resistance:** Resists finger smudges, moisture, and mild alcohol wiping on finished surfaces.
- **Green Water-Based Formula:** Safe working environment with minimal VOC emissions and low odor profile.

3. Suitable Substrates

Suitable for coated paper, offset paper, white cardboard (SBS/FBB), synthetic paper, and surface-treated plastics (PET/PP).

4. Technical Specifications

Property	Unit	Typical Value	Test Method / Notes
Appearance & Color	-	Transparent to milky white viscous liquid	Visual inspection
Viscosity	s	110–160	Zahn #4 cup, 25°C
pH Value	-	8.0–9.0	Precision pH meter, 25°C
Solid Content	%	30±2	Oven method, 120°C × 2 h
Gloss (60°)	GU		

5. Application Guidelines

Ink Preparation	Stir thoroughly for 5–10 minutes; filtration through 200-mesh screen before charging screen stencil.
Plate / Cylinder Specs	Monofilament polyester screen 200–350 mesh/inch (77–140 T/cm); squeegee hardness 70–75° Shore A.
Dilution Ratio	Ready to use; if necessary, add 1%–5% pure water to fine-tune mesh release and leveling.
Press Viscosity	45–60 s (Zahn #3 cup, 25°C).
Press Speed	1,500–3,500 sheets/hour (semiautomatic/automatic flatbed screen press).
Drying Method	Infrared / Hot air tunnel drying, 70–90°C for 20–40 seconds; ensure complete moisture evaporation.
Equipment Cleaning	Wash screen mesh and flood bar immediately with water to prevent mesh clogging.
Application Note	Confirm ink compatibility and conduct adhesion tape testing on target coated boards.

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
WOF22160	Plush soft-touch / Deep matte / High film-build tactile	Coated paper, SBS cardboard, synthetic paper, treated PET/PP	Luxury boutique cartons, premium cosmetics, book covers, boutique gift packaging

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.