



# PNT - CHEM

TECHNICAL DATA SHEET (TDS)  
UV LETTERPRESS PRINTING INKS

## 1. PRODUCT IDENTIFICATION

High-performance UV letterpress ink series developed for pressure-sensitive label applications and optimized for curing under UV LED systems.

<b>Product Name</b>	PNT UV Letterpress Series
<b>Product Type</b>	UV Curable Letterpress Printing Ink
<b>Application</b>	Pressure Sensitive Labels
<b>Printing Method</b>	Narrow Web UV Letterpress
<b>Available Colors</b>	CMYK Colors
<b>Recommended Substrates</b>	Paper, Coated Paper, Selected Synthetic Materials (PP, PE, PET, PVC)

## 2. PRODUCT DESCRIPTION

PNT UV LED Letterpress Ink Series is specially developed for pressure-sensitive label applications using letterpress printing systems. The inks are formulated for curing under UV LED lamp systems and provide stable print performance with high optical density.

## 3. MAIN FEATURES

- Designed for UV / UV LED curing systems
- Optimized for UV letterpress printing applications
- High color strength and excellent print sharpness
- Stable ink transfer and consistent image reproduction
- Fast curing response under suitable UV energy systems
- Suitable for narrow web and high-speed press operations
- Excellent rub and scratch resistance
- Low odor formulation
- Good press stability and consistent rheological performance
- Reliable adhesion on properly treated substrates
- Solvent-free formulation

#### 4. TECHNICAL PROPERTIES

Property	Specification
Appearance	Pigmented High Viscosity Liquid
Printing System	UV Letterpress
Curing System	UV Radical Polymerization
Print Sharpness	High definition / sharp image transfer
Gloss	High
Adhesion	Excellent on treated substrates
Abrasion Resistance	Good
Chemical Resistance	Application dependent
Light Fastness	Medium – High
Recommended Roller System	Optimized for letterpress ink transfer
Curing Performance	Fast curing under UV / UV LED systems
Shelf Life	12 Months
Storage Temperature	15°C – 25°C

#### 5. PRINTING RECOMMENDATIONS

- Roller settings and ink transfer balance should be optimized for letterpress printing units
- UV / UV LED curing systems must provide sufficient energy output for full polymerization
- Printing speed and curing performance should be adjusted according to substrate type and press conditions
- Excessive ink film thickness and plate pressure should be avoided for optimal print quality and curing performance
- Regular monitoring of viscosity, curing efficiency, and print sharpness is recommended during production
- Pre-tests are strongly recommended for new substrates and printing conditions

#### 6. RECOMMENDED SUBSTRATES

- Self-adhesive label papers
- Coated and uncoated papers
- Thermal papers
- PE films
- PP films
- PET films
- Synthetic label materials
- Metallized label stocks
- Pressure-sensitive label substrates
- Corona treated film materials

## 7. PACKAGING

Standard Packaging: 5 KG buckets

## 8. STORAGE & SHELF LIFE

- Optimal Storage Conditions: Between 15°C and 25°C.
- Store in original, tightly closed packaging
- Keep in a cool, dry and dark environment
- Protect from direct sunlight, heat sources and frost
- Ink should be thoroughly stirred before application to ensure homogeneity
- Containers must be closed immediately after use

## 9. CLEANING / HANDLING

- Printing units, rollers, plates, and ink circulation components should be cleaned immediately after use with suitable UV ink cleaning agents
- Dried ink residues should be removed using compatible industrial cleaning solutions
- Prolonged exposure to UV light and heat during handling should be avoided
- Direct skin contact should be avoided
- Appropriate PPE (gloves, protective eyewear) must be used
- Adequate ventilation should be ensured during handling and printing operations
- Cross-contamination with other ink systems or conventional inks must be avoided

## 10. REMARKS / DISCLAIMER

- Before commencing production, preliminary printing trials are strongly recommended to ensure suitability for the intended label application and desired end-use properties
- Substrate compatibility, plate suitability, curing conditions, and post-processing operations (e.g. varnishing, lamination, foil stamping) should be verified prior to full production
- Performance results may vary depending on substrate type, press configuration, UV curing performance, and printing conditions
- It is the user's responsibility to ensure that the product is suitable for the specific application requirements
- Recommendations provided are based on our current knowledge and practical experience and do not constitute a guarantee of final product performance

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