



## Technical Data Sheet

# Green solvent (9DD, 10LED)

**Formula: Mixture**

### **PRODUCT DESCRIPTION:**

High performance Non-VOC and Green solvent for water-based decorative paint performs well in all types of latex paints like acrylic, styrene- acrylic, etc., in a variety of weather conditions, and over substrates with different levels of porosity.

This product shows an equivalent dosage used with propylene glycol in function of increasing open time, wet edge over a range of conditions, freeze thaw stability and anti-skinning in water-based decorative paint and has no significant interference effect on paint properties including viscosity, pH, color development/film properties like dirt pick up, gloss, hardness, scrub resistance, washability, water resistance and mud cracking resistance.

Because of producing from sustainable material, Non-VOC and green solvent for water-based decorative paint is the environmental friendly solvent that can reduce the carbon footprint and green house gas from the manufacturer process, which safe for paint maker & end-user.

Allows the formulation flexibility that is needed to meet increasingly stringent environmental compliance regulations, without compromising performance as following

With a high boiling point of 280°C of Green solvent (9DD), This product is not classified as a VOC according to European Union Decopaint Directive 2004/42/EC (commonly referred to as the Decopaint Directive); European Union Solvent Emissions Directive and China State Environmental Protection Agency.

With a high boiling point of 265°C of Green solvent (10LED), This product is not classified as a VOC according to European Union Decopaint Directive 2004/42/EC (commonly referred to as the Decopaint Directive); European Union Solvent Emissions Directive.

### **APPLICATIONS:**

- Non-VOC and Green solvent for water-based decorative paint

### **Key Attributes:**

- NonVOC\*
- Non-HAP
- Non-SARA
- Reduce CO<sub>2</sub>, from using Bio based material for sustainable living (30% bio-content)
- Low Odor
- Improve application properties through extended workability
- Increase open time and wet edge over a range of conditions
- Maintains other paint performance

\*VOC content of Green solvent < 1 g/l and < 5 g/l, as determined by an outside lab using the ISO 11890-2



### TYPICAL PROPERTIES:

Properties	PG	Green solvent (9DD)	Green solvent (10LED)
Assay	≥99.5%	≥99.0%	≥97.0%
Boiling point (°C) - ASTM D1078-11	187	>280	>265
Freezing Point	<-65°C	<-65°C	<-65°C
Pour point (°C) - ASTM D 97-17a	<-57	<-24	<-24
Specific Gravity @25°C	1.03	1.14	1.20
Viscosity @25°C (mPas)	48.6	120	130
Surface tension @25°C (mN/m)	36.6	41.1	48.9

## APPLICATION PERFORMANCE

### EXCELLENT OPEN TIME/WET EDGE EXTENDER

Non-VOC and Green solvent is the improvement solvent for open time/wet edge extender of gloss water-based decorative paint in an equivalent dosage used with propylene glycol (Fig.2 and Fig.3).

Longer open time can reduce overlapping coating defects when dealing with large painting jobs. In addition, its property feels smooth during painting.

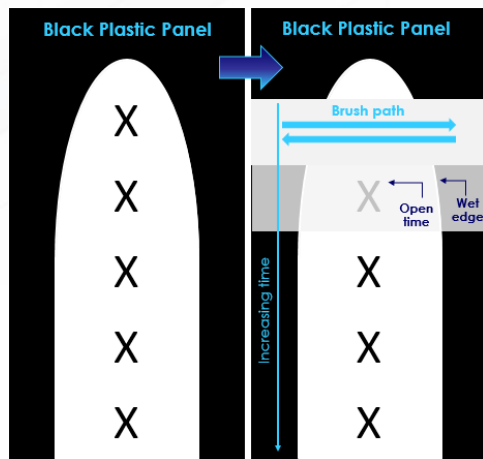
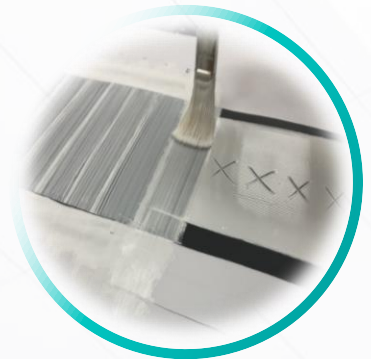


Fig 1. Method for evaluation of open time/wet edge

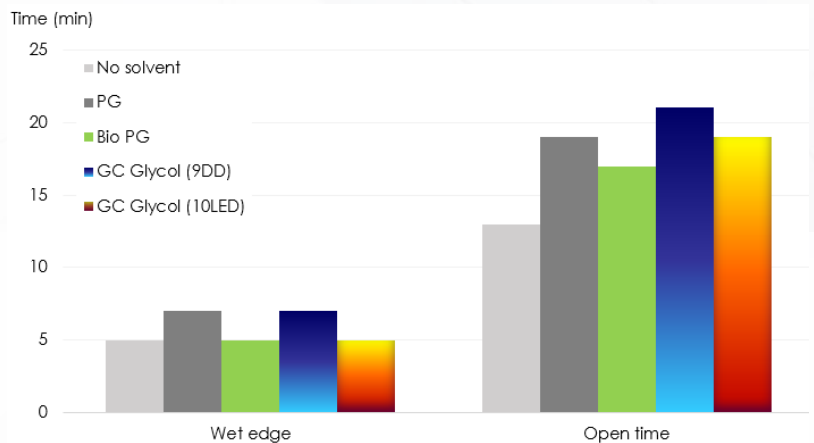


Fig 2. The open time/wet edge extender in Low-PVC decorative paint

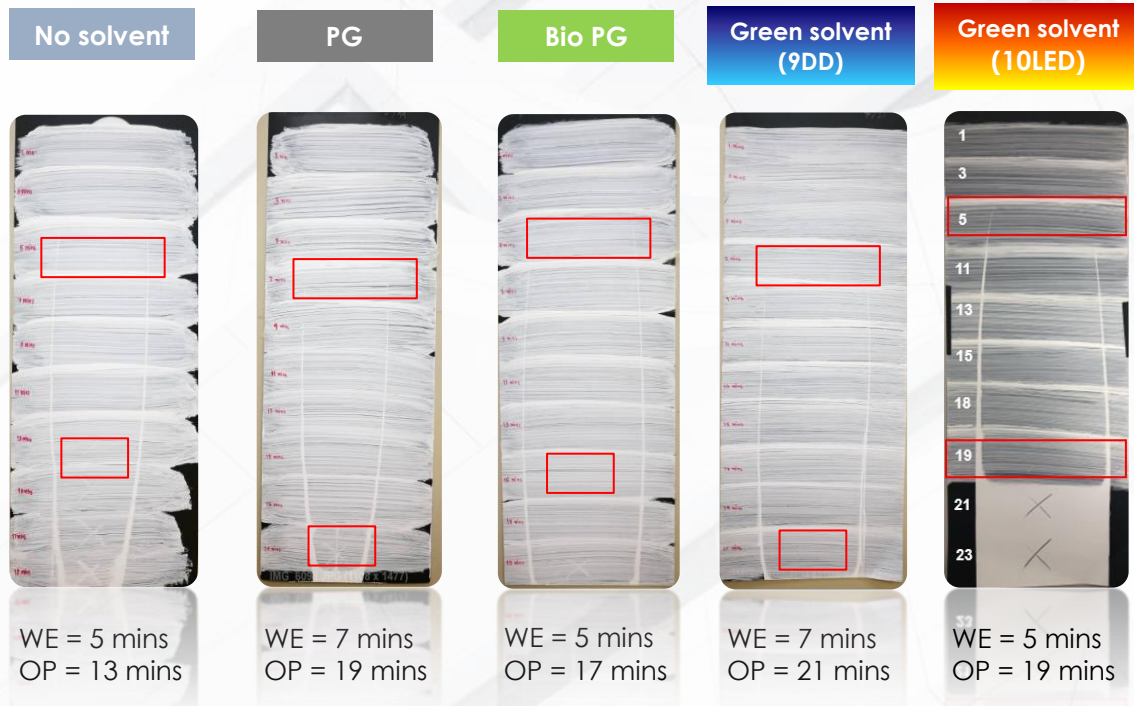


Fig 3. The open time/wet edge extender in Low-PVC decorative paint

### HANDLING AND STORAGE:

Keep the material in the anhydrous state to prevent severe corrosion to the carbon steel or aluminum tank and related equipment. For longer term color stability, it is recommended that the product be stored under an inert atmosphere.

For storage conditions, product is hygroscopic, water contamination should be avoided. Keep container tightly closed without air contamination. The periods of exposure to high temperatures should be minimized. Avoid direct contact to sunlight and higher temperature. Storage under inert atmosphere such as nitrogen is recommended.

### TERMS & CONDITIONS:

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