



Performance comes naturally with Susterra[®] propanediol

A 100% plant-based, petroleum-free diol

We believe that major strides in innovation can leave smaller environmental footprints.

From performance polymers to coatings, binders, polyurethanes and bio-solvents, our 100% bio-based Susterra[®] PDO continues to unlock the power of nature to deliver sustainable solutions that never sacrifice performance.

Plant-based performance polymers

Susterra[®] propanediol (1,3-propanediol or PDO) is petroleum-free and offers high-performing, sustainable solutions for a wide range of polyurethane applications. Plus, Susterra[®] PDO is renewably sourced and generates up to 48% less greenhouse gas emissions cradle-to-gate compared to 1,4-butanediol (BDO), a common petrochemical-sourced alternative.

Susterra[®] PDO offers a wide range of applications in both industrial direct-to-metal and wood coatings.

Regeneratively farmed dent corn

Susterra[®] PDO benefits from feedstock that is certified by the USDA BioPreferred[®] program as a 100% bio-based ingredient. This feedstock uses 100% responsible, regenerative-farmed dent corn, applying several conservation practices.



Applications

Functions/Benefits

Powder PU coatings

- NPG replacement with PDO for performance enhancement
- Improves flexibility & impact resistance
 - Reduces viscosity

PU coatings

- Glycol choice for polyol or chain extender (curative)
- Polyester/polyester polyols: flexibility, processing time & energy, demolding times and abrasion
 - Chain extender: transparency, flexibility, rebound

Water-based architectural coatings

- Co-solvent
- PG replacement for freeze protection & open time
 - LVP-VOC (0.02 mmHg @ 25°C)
 - Improves tint strength in conventional latex formulations

Water-based industrial coatings

- Co-solvent
- Improves chemical and corrosion resistance
 - Improves mechanical properties: flexibility, resistance to deformation (Young's modulus)
 - Improves adhesion and impact resistance properties

Inks

- Monomer, solvent
- Humectant (PG/GLY replacement)
 - Polyester binder (polyol)
 - Dry performance

UV coatings

- Monomer (PU)
- Grain enhancement (PU-A)
 - Reduces solvents
 - Gloss

Wood coatings

- Co-solvent
- Freeze-thaw protection & open time
 - Flexibility
 - Prolongs durability due to higher initial elastic nature

Unsaturated polyester resins (UPR)

- Monomer
- Glycol choice for performance & bio-content
 - Lowers heat deflection temperature and compression strength
 - Flexibility (elongation) and tensile stress

COVATIONBIO|PDO

For additional information or samples, please visit CovationBioPDO.com

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