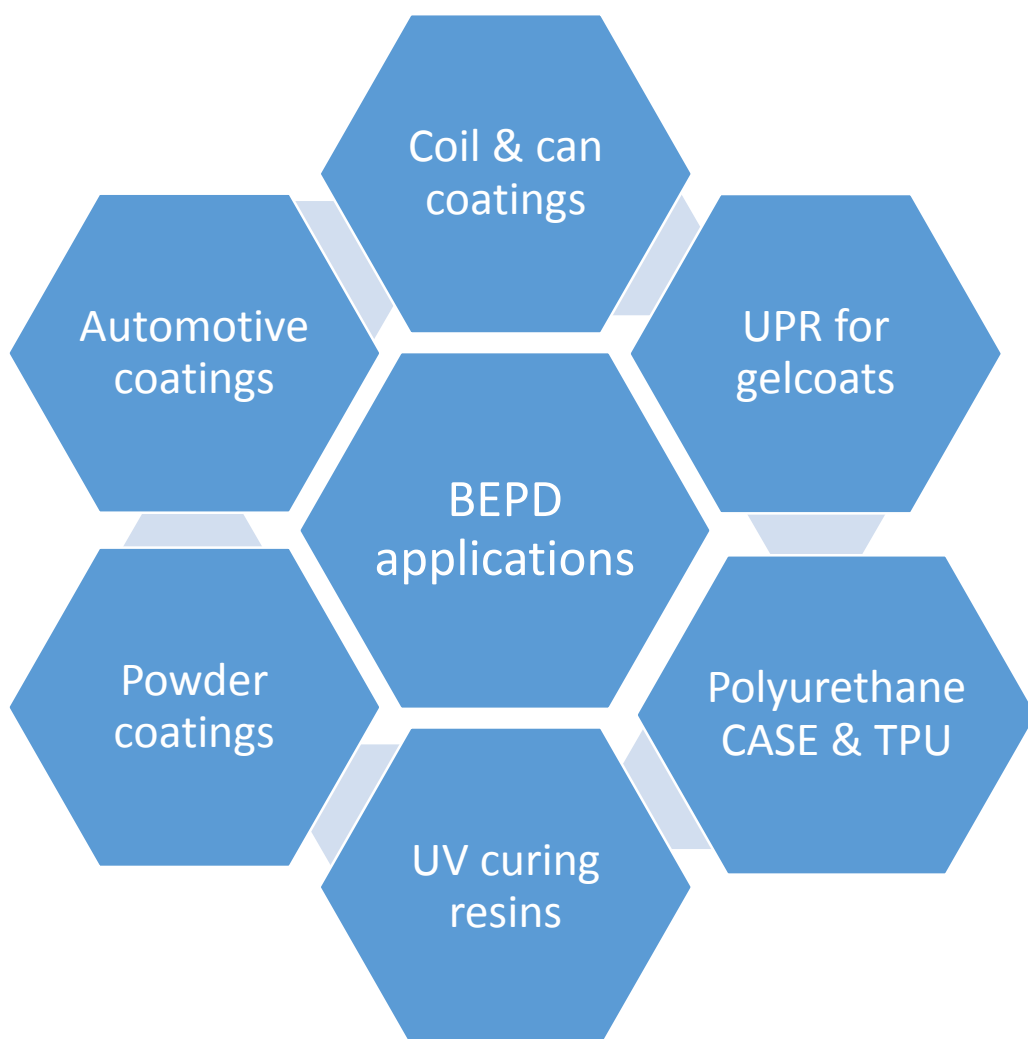


# SYNOXOL™ BEPD

Your glycol of choice for high performance polyester and polyurethane systems

- Improves the hydrolytic stability
- Reduces crystallinity and brittleness
- Improves yellowing resistance and gloss retention
- Increases compatibility

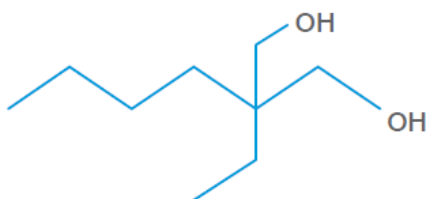
# SYNOXOL™ BEPD 2-Butyl-2-Ethyl-1,3-Propanediol



## Superior Properties

SYNOXOL™ BEPD is a branched aliphatic diol with primary OH groups. The branched structure offers a reduction in crystallinity, increased hydrophobicity and improved compatibility of the polymer.

Also available as liquid SYNOXOL™ BEPD 70L (70 %, BEPD, 25% Neopentyl glycol, 5% water)



CAS no.: 115-84-4  
EC (EINECS) no.: 204-1-117  
HS n.: 2905 39

## Physical properties

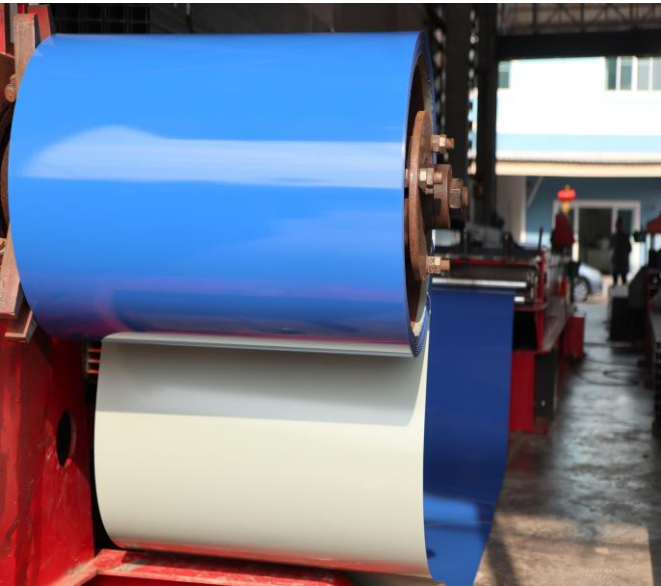
Appearance	Colourless waxy solid
Functionality	2
OH-number	695
Melting point, °C	44
Boiling point, °C	262

## SYNOXOL™ BEPD in Coil Coatings

SYNOXOL™ BEPD offers new possibilities when creating highly flexible and durable coil coatings.

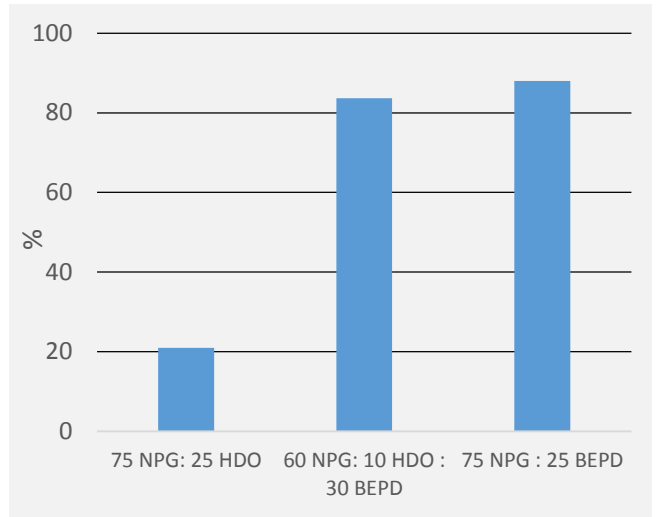
We recommend exchanging 1,6-Hexanediol for SYNOXOL™ BEPD in order to benefit from:

- Improved solvent compatibility
- Improved weathering
- Increased resin Tg with no viscosity increase
- Improved hardness
- Improved stain resistance

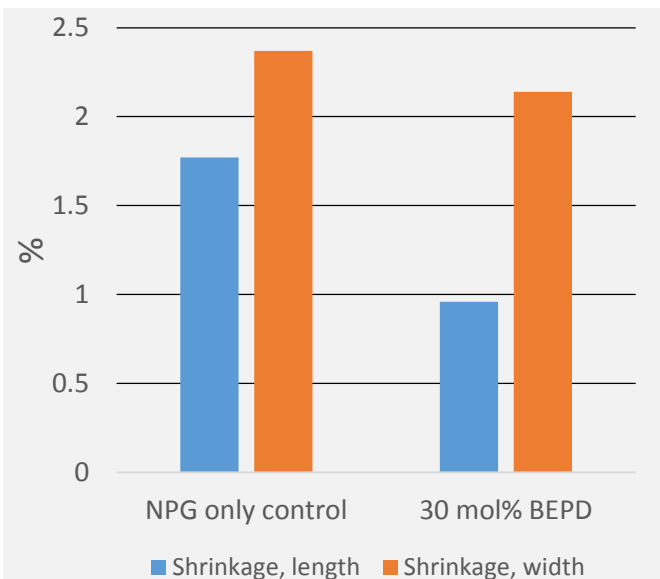


## Florida weathering

Gloss retention after 2 years exposure



## Shrinkage of gelcoat formulations



## SYNOXOL™ BEPD in Unsaturated Polyester Resin Applications

In gelcoats key performance benefits of SYNOXOL™ BEPD versus NPG are:

- Improved moisture & water resistance
- Dimensional stability due to low shrinkage during curing
- Improved flexibility – increased elongation

## SYNOXOL™ BEPD in Can Coatings

In view of societal concerns over epoxy-phenolic systems in the can coating market, SYNOXOL™ BEPD is an ideal candidate monomer for alternative polyester systems.

- Improves resistance to hydrolysis and increases stability during the sterilization process
- Increases compatibility with solvents and leads to lower VOC of the coating
- FDA approved, with EU approval underway



## SYNOXOL™ BEPD in Polyurethane Systems

Used in both polyester polyols and as a chain extender in a wide variety of application areas such as:

- Coatings for wood, leather, textiles
- High performance adhesives
- TPU
- Foam for shoe soles

In PU systems SYNOXOL™ BEPD offers:

- Improved hydrolysis resistance
- Reduced crystallinity thus increased transparency
- Improved abrasion resistance
- Good film formation at low MFFT with increased gloss

## SYNOXOL™ BEPD in Powder Coatings

In Powder Coatings, the key performance attributes of SYNOXOL™ BEPD are:

- Improved hydrophobicity
- Improved resistance to blooming
- Increased reactivity whilst maintaining viscosity





# Leading in emulsions and speciality polymers

Synthomer is one of the world's leading suppliers of emulsion and speciality polymers supporting leadership positions in many market segments including coatings, construction, technical textiles, adhesives, paper and synthetic latex gloves. The company has its Head Office in London (UK) and provides customer focused services from operational centers in Harlow (UK), Marl (Germany), Kuala Lumpur (Malaysia), Shanghai (China) and Dubai (UAE). In June 2016 we have acquired the Monomers, Dispersions and Powders business (MDP) from Hexion with dedicated production, sales and customer service facilities in North America, Europe and South East Asia.

In March 2017, we acquired the coalescing agents and Butyl Ethyl Propanediol (BEPD) business from Perstorp Oxo Belgium AB. The newly acquired businesses significantly improve our footprint to a number of speciality markets which we will continue to serve through a strong network of local technical service and sales branches, supported by regional application development and production in our key markets. We deliver the right formula, globally, individually.

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