# **Eversorb® HP1**

## Effective light stabilizer for Hybrid polymer

## Introduction

Eversorb<sup>®</sup> HP1 is a liquid type stabilizer and used in hybrid polymer (Silyl terminated polyether & SPUR ) type hybrid polymer. To reduce polymer degradation such as yellowing, cracking, losing mechanical and viscoelastic properties, which are initiated by UV light.

Eversorb<sup>®</sup> HP1 is recommended

dosage,  $1 \sim 3$  phr ( base on resin solid) .

## Physical Properties Appearance

Appearance		
Clear, yellow liquid		
Chemical type		
Blend & Mixture		
Density (g/cm3)		
~1.0		
Viscosity (cps.20℃)		
~2000		
Solubility at 25°C (g/100g solvent)		
Butylcarbitol :	>50	
Butyl acetate :	>50	
Xylene :	>50	
1-Methoxy-2-propylacetate : >50		
MEK :	>50	
Water :	< 0.01	

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#### **TGA** scans

5% weight loss: 235.5°C



#### Advantages:

Highly effective UV absorption Easy to incorporate Highly compatible in SMP resin Low initial color

## Experiments

Light stability Test (1) Sample: STPE type hybrid polymer resin Lamp : 300W metal light Test temp: 50°C Test time: 240hrs Additive: 1% Eversorb<sup>®</sup> HP1 Unit: Delta yellowness index (ΔYI)



Light stability Test (2)

Sample: Crystal STPE hybrid polymer sealant

Lamp : ASTM G154-1(340nm UVA lamp)

Test temp: 50  $^\circ\!\mathrm{C}$  Test time: 1000hrs

Additive: 2% Eversorb® HP1

Unit: Delta yellowness index ( $\Delta$ YI)

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	Delta Yi		
	24hrs	500hrs	1000hrs
Blank	30	Decomposed	
Eversorb <sup>®</sup> HP1 (2%)	0.78	6.2	25

#### Recommendation

For highly pigments system 0.5~1.0 phr For opaque or crystal system 1.0~3.0 phr

#### Handling & Safety

Eversorb<sup>®</sup> HP1 can be safely and lead without any irritation caused to the skin.

#### **Storage Conditions**

Eversorb<sup>®</sup> HP1 should be capped properly after using and stored in a dry and dark place without any light exposure.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose. Seller makes no representation or warranty to express or implied including of merchantability or fitness for particular purpose.

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