

# ESO Z10

## Properties and Characteristics

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Epoxidized Soybean Oil (ESO HY-Z-10) is a kind of slight yellow viscous oily liquid, with viscosity of 325mpa.s, refractive index of 1.473 and density of 0.985. Molecular Formula:  $C_{57}H_{106}O_{10}$ .

Epoxidized Soybean Oil is not soluble in water, but it is soluble in organic solvents, such as hydrocarbons, ketones, lipids, and higher alcohols. It is also slightly soluble in alcohol.

## Specifications

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Item	Standard	Result
Color (APHA)	$\leq 180$	40-45
Epoxy Value (%) ASTM D1652-04	$\geq 6.0$	7.0
Acid Value (mgKOH/g)	$\leq 0.8$	0.75
Iodine Value (g/100g)	$\leq 6.0$	1.5
Density ( $e_{20^{\circ}C/cm^3}$ )	$0.990 \pm 0.008$	0.985
Heating Loss (125°C, 3h)	$\leq 0.30\%$	0.20%
Heat Stability (177°C, 3h)	$\geq 95\%$	95%
Flash Point (°C)	$\geq 280^{\circ}C$	295°C

## Applications

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Epoxidized Soybean Oil is a polyvinyl chloride plasticizer and stabilizer with good heat and light stability. Product can be widely used in circuit boards, cables, PVC leathers, food packaging bags, medical equipment, and culture products. When used as a substitution for phthalates plasticizers, product contributes greatly to overall aging resistance and stabilization of PVC products.