

# Staybelite™ Ester 10-E Ester of Hydrogenated Rosin



Staybelite™ ester 10-E ester of hydrogenated gum rosin is a pale, thermoplastic resin with the excellent resistance to oxidation and discoloration characteristic of ester resins derived from hydrogenated rosin. It is a glycerol ester of rosin that has been stabilized by hydrogenation and has found wide acceptance as a tackifying resin for many adhesive applications, particularly pressure-sensitive, hot melt and emulsion types. In general, it is useful where there is need for a pale, nonoxidizing, color-stable resin.

- Easily emulsifiable
- Excellent resistance to oxidation
- Light color
- Low odor
- Medium softening point
- Thermoplastic hydrogenated resin
- Wide solubility and compatibility range

Property	Typical Value	Unit	Method <sup>1</sup>
Description, Base Resin	Partially Hydrogenated Gum Rosin		
Ring and Ball Softening Point	76	°C	ASTM E 28
Softening Point	86		Hercules drop method, Internal method
Color, Gardner	6		ASTM D 6166, 50% solids in toluene
Acid Number	8	mg KOH/g	ASTM D 465
Density at 25°C	1.07	kg/dm <sup>3</sup>	
Melt Viscosity 120°C	1800	cP	
Melt Viscosity 140°C	330	cP	
Melt Viscosity at 160°C	90	cP	

<sup>1</sup> internal method based upon the specified norm

## Applications

Caulks and Sealants, Roadmarking, Additives, Carpet, Additives, Packaging Inks, Correction fluids, Labels, Tapes, Metal coatings, Protective films, Asphalt and Road Construction, Waterproofings, Other adhesives, Speciality tapes, Wire and cable

## Compatibility and Solubility

Compatible at all ratios, or in limited but practically useful proportions, with other resins, waxes, and plasticizers; with natural and synthetic rubbers, chlorinated rubber, and ethylcellulose; with EVA (ethylene-vinyl acetate) copolymers and low molecular weight polyethylene; with SIS (styrene-isoprene-styrene) and SBS (styrene-butadiene-styrene) block copolymers; with APAO (amorphous poly-alphaolefins); with acrylic resins; with certain polyamide resins and polyurethane compounds; and with PVP (polyvinylpyrrolidone), polyvinylbutyral, nitrocellulose, drying oils and alkyd resins.

Soluble in esters; ketones; higher alcohols; glycol ethers; and aliphatic, aromatic, and chlorinated hydrocarbons. Insoluble in ethanol and water. Solubility Parameters, 50% resin concentration: 7,0-10,6 in Class I solvents - weakly hydrogen-bonded; 7,4-10,0 in Class II solvents - moderately hydrogen-bonded; 9,5-11,9 in Class III solvents - strongly hydrogen-bonded.

# Staybelite™ Ester 10-E Ester of Hydrogenated Rosin



## Packaging

Staybelite™ ester 10-E ester of hydrogenated rosin is pastillated and packed in polyethylene bags of 25 kg net, and supplied on shrink-wrapped pallets of 40 bags (1000 kg) each, from Synthomer facilities in the Netherlands and from warehouses located in Europe.

## Storage

Due to the thermoplastic behavior, pastillated and flaked resins may fuse, block or lump. This can be accelerated under any of the following conditions: 1) above ambient temperature 2) prolonged storage 3) pressure, e.g., stacking pallets, or a combination of these conditions. This is particularly applicable for low softening point resin grades. In order to maintain the flake or pastille shape, we therefore recommend storing the material in a temperature-controlled area; be careful with stacking material or applying pressure and preventing prolonged storage. It should be noted that lumping does not have a negative impact on the product specifications. Due to the nature of the product, claims regarding lumping cannot be accepted.

Resins are prone to gradual oxidation, some more so than others. This could result in darkening and/or it could have an adverse effect on the solubility of the resin in organic solvents or on its compatibility with polymers. Accordingly, it is recommended that strict control of inventory be observed at all times, taking care that the oldest material is used first.

Staybelite™ ester 10-E ester of hydrogenated rosin material will remain within product specification limits for a period of at least twelve months after shipment from Synthomer's production facilities in the Netherlands, provided storage conditions outlined in this data sheet are observed. However, as we can neither anticipate the conditions under which the resin is processed nor the end use applications for which it is used, we recommend that the material be tested upon receipt.

## Comments

Properties reported here are typical of average lots. Synthomer makes no representation that the material in any particular shipment will conform exactly to the values given.