



# Technical Data Sheet Foralyn™ 90-FG Ester of Hydrogenated Rosin

# **Applications**

- Adhesives/sealants-b&c
- Bookbinding
- Caps & lids non-food contact
- Carpet construction
- Case & carton sealing closings
- Commerical printing inks
- Depilatories ingredients
- · Film modification
- · Labels non food contact
- Packaging component films
- Packaging components non food contact
- Packaging tape
- Paints & coatings
- · Polymer modification
- · Protective coatings
- Road markings
- · Roofing ingredients
- Solder flux
- Specialty tape
- Tape non food contact
- Tires
- Wax ingredients
- · Wire/cable

#### **Key Attributes**

- Compatible and miscible with a wide variety of materials
- Inherent tackiness
- Low acid number
- Low odor
- Pale color
- · Resistant to oxidation
- Thermoplastic

## **Product Description**

Foralyn™ 90-FG Ester of Hydrogenated Rosin is a pale, medium-hard, thermoplastic synthetic resin that has excellent resistance to oxidation, discoloration, and other properties affected by ageing. It is the glycerol ester of partially hydrogenated rosin specially processed to yield a low-odor, low-acid-number product. These and other outstanding properties make it particularly useful as a modifier of masticatory ingredients used in chewing gum bases.

# **Typical Properties**

Property	Typical Value, Units
General	
Color, Gardner <sup>a</sup>	3
Softening Point	
Hercules drop method	90 °C
Acid Number (mg KOH/g)	8
Density	
@ 25°C	1.06 kg/dm <sup>3</sup>
Description, Base Resin	Ester of Hydrogenated Rosin

<sup>&</sup>lt;sup>a</sup>50% resin solids in toluene

## **Compatibility and Solubility**

Low odor, low acid number, pale color, resistance to oxidation, thermoplasticity, inherent tackiness; soluble and compatible with a wide variety of materials.

Compatible at all ratios, or in limited but practically useful proportions, with natural and synthetic resins, waxes, natural and synthetic elastomers, vinyl polymers and copolymers, EVA copolymers, nitrocellulose, ethylcellulose.

Soluble in esters, ketones, higher alcohols, glycol ethers, aliphatic hydrocarbons, aromatic hydrocarbons, chlorinated hydrocarbons.

# **Packaging**

Foralyn<sup>™</sup> 90-FG 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 Eastman 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.

Foralyn™ 90-FG Ester of Hydrogenated Rosin material will remain within product specification limits, as mentioned under the heading "Product Specifications", for a period of at least six months after shipment from Eastman 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.

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