

Technical Data Sheet

Regalite™ S5090 Hydrocarbon Resin

Applications

- Adhesives/sealants-b&c
- Bookbinding
- Carpet construction
- Case & carton sealing closings
- Casting wax
- Commercial printing inks
- Hygiene adhesives
- Labels non food contact
- Polymer modification
- Protective coatings
- Specialty tape
- Tape non food contact
- Tires

Product Description

Regalite™ S5090 Hydrocarbon Resin is an unique partially hydrogenated water-white inert thermoplastic resin derived from petrochemical feedstock.

Typical Properties

Property	Test Method	Typical Value, Units
General		
Ring and Ball Softening Point	ASTM E 28	91 °C
Color, Gardner ^b	ASTM D 6166	<1
Color, Hunterlab b ^a 5 cm path length		6
Cloud Point ^d MMAP		56 °C
Molecular Weight ^c		
M _n		560
M _w		760
M _w /M _n		1.4
M _z		1200

^a50% resins solid in toluene

^b50% in toluene.

^cMolecular weight, z-average from gel permeation chromatography, elution with THF.

^dCloud point temperature from 2:1 Vol:Vol aniline-methylcyclohexane, Eastman method.

Compatibility and Solubility

Regalite™ S5090 Hydrocarbon Resin is a partially hydrogenated, light colored resin which has been formulated to give a low hot melt viscosity. The specific balance of molecular weight and polarity of Regalite™ S5090 Hydrocarbon Resin enables the formulation of SIS and SBS based hot melt adhesives with very low viscosity and long open time compared to fully hydrogenated resins. Regalite™ S5090 Hydrocarbon Resin has a very good resistance to thermal and oxidative degradation and low odor. The high polarity of Regalite™ S5090 Hydrocarbon

Resin, combined with the inherent low adhesive viscosity, result in excellent adhesion to low surface energy substrates such as polyethylene.

Soluble at all useful proportions in aliphatic, aromatic, and chlorinated hydrocarbons. Insoluble in alcohols and water.

Compatible at all ratios, or in limited but practically useful proportions, with SBS (styrene-butadiene-styrene) block copolymers, SIS (styrene-isoprene-styrene) block copolymers and EVA (ethylene-vinyl acetate) and EBA (ethylene-butyl-acrylate) copolymers.

Packaging

Regalite™ S5090 Hydrocarbon Resin is pastillated and packed in polyethylene bags of 20 kg net, and supplied on shrink-wrapped pallets of 50 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.

Regalite™ S5090 Hydrocarbon Resin will remain within product specification limits, as mentioned under the heading "Product Specifications", for a period of at least twelve 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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