

Technical Data Sheet

Regalrez™ 1094 Hydrocarbon Resin

Applications

- Adhesives/sealants-b&c
- Case & carton sealing closings
- Film modification
- Hygiene adhesives
- Labels non food contact
- Packaging components non food contact
- Paints & coatings
- Polymer modification
- Protective coatings
- Specialty tape
- Tape non food contact
- Tires
- Wax ingredients

Key Attributes

- Excellent thermal and UV stability
- Fully hydrogenated
- Highly stable
- Low odor
- Water-white color

Product Description

Regalrez™ 1094 hydrocarbon resin is produced by polymerization and hydrogenation of pure monomer hydrocarbon feedstocks. Regalrez™ 1094 is a highly stable, light colored, low molecular weight, nonpolar resin suggested for use in plastics modification, adhesives, coatings, sealants, and caulks. Regalrez™ 1094 is especially suited to applications where the lowest color and most stability against weathering and thermal degradation is required. Regalrez™ 1094 is suggested for use in elastomeric sealants and adhesives tapes where outdoor exposure will occur or where clarity and resistance to yellowing is a requirement. Regalrez™ 1094 contains no added antioxidants or UV stabilizers.

Typical Properties

Property ^a	Test Method ^b	Typical Value, Units ^c
General		
Ring and Ball Softening Point	ASTM E 28	95 °C
Color, Gardner ^e	ASTM D 6166	<1
Cloud Point ^g		
DACP		59 °C
MMAp		39 °C
OMSCP		<-40 °C
Molecular Weight ^f		
M _n		550
M _w		850
M _w /M _n		1.6
M _z		1500
Density		
@ 21°C		0.99 kg/L
Melt Viscosity		
1 poise		190 °C
10 poise		150 °C
100 poise		125 °C
1000 poise		115 °C
Glass Transition Temperature (T _g) ^d		40 °C

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^bUnless noted otherwise, the test method is ASTM.

^cUnits are in SI or US customary units.

^dGlass transition temperature by differential scanning calorimetry.

^e50% in toluene.

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

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

Compatibility and Solubility

Regalrez™ 1094 is compatible with polyethylene, polypropylene, natural rubber, EPDM, butyl rubber, ethylene-propylene copolymers and the isoprene, ethylene-propylene and ethylene-butylene midblocks of SIS and SEPS, and SEBS block copolymers. Regalrez™ 1095 can be used with EVA copolymers with less than 20% vinyl acetate, paraffin, microcrystalline and polyolefin waxes. Regalrez™ 1094 is soluble in aliphatic and aromatic solvents, C5 and higher esters and ketones. It is insoluble in glycol ethers, glycol ether esters, and alcohols. For low/zero VOC systems Regalrez™ 1094 is soluble in t-butyl acetate and perchlorobenzenetetrafluoride (PCBTF) and will tolerate some acetone and/or methyl acetate as a diluent in solvent systems based on TBA and/or PCBTF. VOC exemptions and environmental regulations vary regionally and compliance with local standards should be verified before any claims about VOC content are made.

Packaging

Pastilles, in multi-wall paper bags (50 lbs, 22.7 kg, net wt).

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.

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