

Regalrez™ 1094 Hydrocarbon Resin



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.

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

For further information regarding this product please refer to:

Synthomer Adhesive Technologies

eMail: Adhesive.Technologies@Synthomer.com

Property	Typical Value	Unit	Method ¹
Ring and Ball Softening Point	95	°C	ASTM E 28
Color, Yellowness Index	3		ASTM E 313, 50% solids in toluene
MMA cloud point	87	°C	from 1:2 mixture of methylcyclohexane and aniline
DACP cloud point	59	°C	from 1:1 mixture of xylene and diacetone alcohol
Molecular Weight, Mn	550	g/mol	GPC using polystyrene standards, elution with THF
Molecular Weight, Mw	928	g/mol	
Molecular Weight, Mz	1490	g/mol	
Polydispersity (Mw/Mn)	1.7		
Melt Viscosity at 115°C	1000	poise	Brookfield
Melt Viscosity at 125°C	100	poise	
Melt Viscosity at 150°C	110	poise	
Melt Viscosity at 190°C	1	poise	
Density at 21°C	0.99	kg/L	
Glass Transition Temperature (Tg-midpoint)	40	°C	DSC, 20°C/minute

¹ internal method based upon the specified norm

Applications

Roadmarking, Caulks and Sealants, Correction fluids, Labels, Other coatings, Metal coatings, Speciality tapes

Compatibility and Solubility

Regalrez™ 1094 is compatible at all ratios or in limited but practically useful proportions with polyethylene, polypropylene, natural and synthetic rubbers, EPDM, butyl rubber, ethylene-propylene copolymers, APAO (amorphous poly-alpha-olefins), OBC (olefinic block copolymers), mPE (metallocene-catalyzed polyethylene) copolymers, mPP (metallocene-catalyzed polypropylene) copolymers, and the

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isoprene, ethylene-propylene and ethylene-butylene midblock of SIS and SEPS, and SEBS block copolymers. Regalrez 1094 can be used with EVA copolymers with less than 32% vinyl acetate, EnBA (ethylene n-butyl acetate) copolymers, 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 (TBA) and perchlorobenzene tetrafluoride (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 weight).

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.

The useful life of this product can be affected by storage and handling conditions. When stored in the original unopened container in an enclosed area and protected from moisture, extreme temperatures and contamination, the shelf life of this product is estimated to continue to meet applicable sales specifications for 3 years from the date of manufacture. Shelf life is a guide not an absolute value. The product should be reanalyzed for critical properties at the end of its shelf life to see if it meets specification for use.

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.