



Product Data Sheet

Regalrez 1094 Hydrocarbon Resin

Application/Uses

- Automotive
- Building and Construction
- Caulks and Sealants
- Film Modification
- Hot Melt Adhesives
- Paint and Coatings
- Pressure Sensitive Adhesives
- Rubber and Plastic Modification
- Solventborne Adhesives
- Wax Modification

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	Test Method	Typical Value, Units
Ring and Ball Softening Point	ASTM E 28	95°C
Color ^a		2
Cloud Point ^b		
MMAp		84°C
DACP		59°C
OMSCP		<-40°C
Molecular Weight ^c		
M _z		1350
M _w		850
M _n		550
M _w /M _n		1.6
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

^a Yellowness Index, 50% solids in toluene

^b MMAp: cloud point measured in a 1:2 mixture of methylcyclohexane and aniline; DACP: cloud point measured in a 1:1 mixture of xylene and 4-methyl-2-pentanone; For more information see "Hydrocarbon Spectrum" brochure WA-86

^c Molecular weight measured via Gel Permeation Chromatography (GPC) using polystyrene standards

^d Midpoint

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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 1094 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 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 wt).

Storage

Pastilled and flaked forms of low to medium softening point resins may fuse, block, or lump under the following conditions: (1) during hot weather months, (2) if stored near steam pipes or other sources of heat, and (3) upon prolonged storage.

Flaked resins have large surface areas per unit mass and are therefore prone to gradual oxidation. This could result in darkening, or in a change in the resins' solubility or compatibility in solvents and polymers. The rate of oxidation is contingent upon the type of resin. Hydrogenated resins are very oxidation resistant, but good manufacturing practice suggests that older stocks be used first. Hydrogenated hydrocarbon resins have been stored in Southern US warehousing conditions for up to two years with no observable change in properties. For storage periods exceeding two years the material should be re-tested to verify compliance with product specifications but there is no indication that these products can be stored for many years without affecting performance.

All hydrocarbon resins will form some fine dust during normal storage and handling and can form explosive dust-air mixtures. The material may accumulate a static charge which could provide an ignition source. Equipment used to process hydrocarbon resins should be grounded to minimize the accumulation of static charge.