

Technical Data Sheet

Regalrez™ 1018 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
- Liquid
- Water-white color

Product Description

Regalrez™ 1018 hydrocarbon resin is produced by polymerization and hydrogenation of pure monomer hydrocarbon feedstocks. Regalrez™ 1018 is a highly stable, light colored, low molecular weight, nonpolar liquid resin suggested for use in plastics modification, adhesives, coatings, sealants, and caulks. Due to its fully hydrogenated cycloaliphatic structure and low softening point Regalrez™ 1018 is useful as a plasticizer in systems where low color and thermal stability are primary concerns and plasticizer migration must be minimized.

Typical Properties

Property ^a	Test Method ^b	Typical Value, Units ^c
General		
Ring and Ball Softening Point	ASTM E 28	Liquid @ 20°C
Color, Gardner ^e	ASTM D 6166	<1
Cloud Point ^g		
DACP		20 °C
MMAp		65 °C
OMSCP		<-40 °C
Molecular Weight ^f		
M _n		300
M _w		370
M _w /M _n		1.2
M _z		500
Melt Viscosity		
10 poise		60 °C
100 poise		40 °C
1000 poise		30 °C
Glass Transition Temperature (T _g) ^d		-23 °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.

Compatibility and Solubility

Regalrez™ 1018 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™ 1018 can be used with EVA copolymers with less than 20% vinyl acetate, paraffin, microcrystalline and polyolefin waxes. Regalrez™ 1018 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 1018 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

Liquid in 55 gal metal drums (390 lbs, 177 kg, net wt) or bulk in tank car or truck.

Storage

It is recommended that strict control of inventory be observed at all times, taking care that the oldest material is used first. The flash point of Regalrez™ 1018 is 149°C. This product should not be processed at temperatures exceeding the flash point. 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.

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