Regalrez™ 1018 Hydrocarbon Resin

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.

- Excellent thermal and UV stability
- Fully hydrogenated
- Highly stable
- Liquid
- 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	Liquid @ 20°C		ASTM E 28
Color, Yellowness Index	5		ASTM E 313, 50% solids in toluene
MMAP cloud point	64	°C	from 1:2 mixture of methylcyclohexane and aniline
DACP cloud point	20	°C	from 1:1 mixture of xylene and diacetone alcohol
Molecular Weight, Mn	310	g/mol	GPC using polystyrene standards, elution with THF
Molecular Weight, Mw	400	g/mol	
Molecular Weight, Mz	650	g/mol	
Polydispersity (Mw/Mn)	1.3		
Melt Viscosity at 30°C	1000	poise	Brookfield
Melt Viscosity at 40°C	100	poise	
Melt Viscosity at 60°C	10	poise	
Glass Transition Temperature (Tg-midpoint)	-23	°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™ 1018 is compatible with polyethylene, polypropylene, natural and synthetic rubbers, EPDM, butyl rubber, ethylene-propylene copolymers, APAO (amorphous poly-alpha-olefins), metallocene-catalyzed polyolefins, and the isoprene, ethylene-propylene and ethylene-butylene midblock 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 (TBA) 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.

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 three 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.