TECHNICAL DATA SHEET

Regalrez™ 3102 Hydrocarbon Resin

Regalrez™ 3102 hydrocarbon resin is produced by polymerization and partial hydrogenation of pure monomer hydrocarbon feedstocks. It is highly stable, light colored, low molecular weight resin suggested for use in adhesives, coatings, sealants, and caulks. Due to its low color, high stability and balance of cycloaliphatic and aromatic structure, Regalrez™ 3102 provides a breadth of compatibility that is not possible with a purely aromatic or aliphatic resin. It is suggested for use in applications where fully hydrogenated resins or pure monomer aromatic resins are incompatible or do not give the desired balance of properties.

- Excellent thermal and UV stablity
- High aromatic content
- Highly stable
- Low color
- Partially hydrogenated
- Water-white color

For further information regarding this product please refer to:

Synthomer Adhesive Technologies

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Property	Typical Value	Unit	Method[1]
Ring and Ball Softening Point	103	°C	ASTM E 28
Color, Yellowness Index	3		ASTM E 313, 50% solids in toluene
MMAP cloud point	24	°C	from 1:2 mixture of methylcyclohexane and aniline
Molecular Weight, Mn	780	g/mol	GPC using polystyrene standards, elution with THF
Molecular Weight, Mw	1380	g/mol	
Molecular Weight, Mz	2220	g/mol	
Polydispersity (Mw/Mn)	1.8		
Melt Viscosity at 160°C	10	poise	
Melt Viscosity at 195°C	1	poise	
Density at 21°C	1.04	kg/L	
Glass Transition Temperature (Tg-midpoint)	50	°C	DSC, 20°C/minute
DACP cloud point	-29	°C	from 1:1 mixture of xylene and diacetone alcohol
Melt Viscosity at 135°C	100	poise	
Melt Viscosity at 125°C	1000	poise	Brookfield

[1] internal method based upon the specified norm

Applications

Caulks and Sealants, Film Modification, Labels, Other coatings, Packaging, Plastic Modification, Specialty Tapes, Wax Modification

Compatibility and Solubility

Regalrez™ 3102 is compatible in useful proportions with natural rubber, SBR, polychloroprene and the midblock of SBS (styrene-butadiene-styrene), SIS (styrene-isoprene-styrene), SIBS (styrene-isoprene/butylene-styrene) and SEBS (styrene-ethylene/butylene-styrene) block copolymers, as well as modifying the styrenic endblock of all styrene-containing block copolymers. Regalrez™ 3102 can

be used with EVA copolymers with up to 40% vinyl acetate.

Regalrez™ 3102 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 3102 is soluble in acetone, methyl acetate, 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
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 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.