TECHNICAL DATA SHEET

Regalite™ UltraPure 1100 Hydrocarbon Resin

REGALITE™ UltraPure 1100 hydrocarbon resin is a low molecular weight fully hydrogenated water-white thermoplastic resin with low targeted volatiles after aging, low odor, and low, stable amount of substances of interest as a function of aging temperature. REGALITE UltraPure 1100 has improved color stability compared to the heritage grade with the same aromatic content and softening point. Like REGALITE R1100 hydrocarbon resin, this resin has excellent compatibility in a wide range of polymers and is an excellent tackifier in hot melts requiring good color retention upon aging.

- Improved resistance to heat and oxidation
- Low odor
- Low organic volatile content
- Low trace chemicals
- Water-white initial 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	100	°C	ASTM E 28
Styrene	<0.05	ppm	Measured by HS-GC-MS/SIM after 30 minutes at 190°C
Color, Gardner	<1		ASTM D 6166, 50% solids in toluene
Color, Gardner, 24 hours at 175°C	0.5		
Color, Hunterlab b	0.3		Uncentrifuged, 5 cm path length, 50% solids in toluene
Density at 25°C	0.99	kg/dm³	
MMAP Cloud Point	80	°C	from 1:2 mixture of methylcyclohexane and aniline
Molecular Weight, Mn	600	g/mol	GPC, using polystyrene standards, elution with THF
Molecular Weight, Mw	830	g/mol	
Molecular Weight, Mz	1200	g/mol	
Polydispersity (Mw/Mn)	1.4		
Melt Viscosity at 120°C	25000	cP	Brookfield
Melt Viscosity at 140°C	2500	cP	
Melt Viscosity at 160°C	500	cP	
Glass Transition Temperature (Tg)	50	°C	DSC, 20°C/minute

[1] internal method based upon the specified norm

Applications

Hygiene Adhesives, Packaging

Compatibility and Solubility

Soluble at all useful proportions in aliphatic, aromatic, and chlorinated hydrocarbons. Insoluble in alcohols and water. Compatible at all ratios, or in limited but practically useful proportions, with natural and synthetic rubbers, EVA (ethylene-vinyl acetate) copolymers, APAO

(amorphous poly-alpha-olefins), SIS (styrene-isoprene-styrene) block copolymers, SBS (styrene-butadiene-styrene) block copolymers SIBS (styrene-isoprene/butadiene-styrene) block copolymers, SEBS (styrene-ethylene/butylene- styrene) block copolymer, SEPS (styrene-ethylene/propylene-styrene) block copolymer, polyethylene, polypropylene polymers, PIB (polyisobutene), OBC (olefinic block copolymer), mPE (metallocene-catalyzed polyethylene) and TPE (thermoplastic elastomers).

Packaging

REGALITE™ UltraPure 1100 hydrocarbon resin is pastillated, packed in polyethylene bags of 20 kg net, and supplied on shrink-wrapped pallets of 50 bags (1000 kg) each, from Synthomer's facilities in the Netherlands and from warehouses located in Europe.

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 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.

REGALITE™ UltraPure 1100 hydrocarbon resin material will remain within product specification limits, as mentioned in the sales specification sheet, for a period of at least twelve months after shipment from Synthomer"s production facilities in the Netherlands, provided storage conditions outlined in this data sheet are observed. However, as we can neither anticipate the conditions under which the resin is processed nor the end use applications for which it is used, we recommend that the material be tested upon receipt.

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.