Kristalex™ F115 Hydrocarbon Resin

Kristalex™ F115 hydrocarbon resin is a water-white, color stable, low molecular weight thermoplastic hydrocarbon polymer. Based on purified 8-9 carbon aromatic monomers, this resin is indicated for use in plastics modification, hot melt adhesives and coatings, sealants and caulks. Kristalex™ F115 is compatible with a wide variety of oils, waxes, alkyds, plastics, and elastomers, and is soluble in many common organic solvents.

In EVA-based hot melt adhesives Kristalex™ F115 has useful compatibility with EVA grades with up to 30% vinyl acetate and is useful in formulating low-color adhesives with improved high temperature resistance. In styrenic block copolymer based adhesives Kristalex™ F115 preferentially associates with the styrenic endblocks, producing higher cohesion at temperatures up to 70°C without affecting tack and adhesion properties.

- Excellent thermal stability
- High softening point
- Made from purified aromatic monomers
- Water-white initial color

Property	Typical Value	Unit	Method[1]
Ring and Ball Softening Point	117	°C	ASTM E 28
Color, Hunterlab b	2		uncentrifuged, 5 cm path length, 50% in toluene
OMS (odorless mineral spirits) cloud point	110	°C	from Stoddard solvent
Molecular Weight, Mn	980	g/mol	GPC using polystyrene standards, elution with THF
Molecular Weight, Mw	1850	g/mol	
Molecular Weight, Mz	3180	g/mol	
Polydispersity (Mw/Mn)	1.6		
Melt Viscosity at 140°C	46000	cP	Brookfield
Melt Viscosity at 160°C	5500	cP	
Melt Viscosity at 180°C	1200	cP	
Melt Viscosity at 200°C	400	cP	
Density at 25°C	1.06	kg/dm³	

[1] internal method based upon the specified norm

Applications

Roadmarking, Carpet, Caulks and Sealants, Correction fluids, Graphics, Labels, Additives, Packaging specialities, Metal coatings, PSA Packaging tapes, Speciality tapes, Tapes, Waterproofings

Compatibility and Solubility

Compatible at all ratios, or in limited but practically useful proportions, with a wide variety of materials such as styrene-butadiene rubber (SBR) and SBR block copolymers, neoprene, nitrile, polybutadiene, acrylic polymers, chlorinated rubber, EVA resins (ethylene-vinyl acetate copolymers), styrenated alkyds, vinylated alkyds, drying oil alkyds, rosin ester resins, as well as modifying the styrenic endblocks

of all styrene-containing block copolymers.

Soluble in aromatic and chlorinated hydrocarbons, esters, and ketones. Insoluble in aliphatic hydrocarbons; alcohols and glycols. Limited solubility in nitroparaffins.

Packaging

Kristalex™ F115 hydrocarbon resin is pastillated and packed in polyethylene bags of 25 kg net, and supplied on shrink-wrapped pallets of 40 bags (1000 kg) each, from Synthomer 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 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.

Kristalex™ F115 hydrocarbon resin material will remain within product specification limits for a period of at least twelve months after shipment from Synthomer 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.