ENDEX™ 160 Hydrocarbon Resin

A water-white thermoplastic resin made from purified aromatic hydrocarbon monomers. Used to modify the melt flow and increase the temperature resistance of styrenic plastic and rubber. Reinforces the styrene endblocks of styrenic block copolymers. In adhesives ENDEX™ 160 Hydrocarbon Resin will associate with the styrenic endblocks, producing higher cohesion at temperatures up to 70°C without affecting tack and adhesion properties. ENDEX™ 160 Hydrocarbon Resin has the highest softening point among all hydrocarbon resins available from Synthomer.

- Heat stability
- Highest softening point available
- Pure aromatic monomer composition
- 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]
Color, Yellowness Index	8		ASTM E 313, 50% solids in toluene
MMAP cloud point	16	°C	from 1:2 mixture of methylcyclohexane and aniline
DACP cloud point	-12	°C	from 1:1 mixture of xylene and diacetone alcohol
OMS (odorless mineral spirits) cloud point	136	°C	from Stoddard solvent
Molecular Weight, Mw	9800	g/mol	
Melt Viscosity at 210°C	100	poise	
Polydispersity (Mw/Mn)	3.1		
Molecular Weight, Mz	17490	g/mol	
Melt Viscosity at 245°C	10	poise	
Ring and Ball Softening Point	160	°C	ASTM E 28
Glass Transition Temperature (Tg-midpoint)	110	°C	DSC, 20°C/minute
Melt Viscosity at 180°C	1000	poise	Brookfield
Molecular Weight, Mn	3180	g/mol	GPC using polystyrene standards, elution with THF

[1] internal method based upon the specified norm

Applications

Adhesives, Assembly, Carpet, Caulks and Sealants, Film Modification, Graphic inks, Hygiene Adhesives, Labels, Other coatings, Packaging, Plastic Modification, Roofing, Specialty Tapes, Packaging Tapes, Wax Modification

Compatibility and Solubility

Compatible with polystyrene or styrene-containing polymers. Incompatible with polyolefins, natural rubber, butyl rubber, EPDM, and EVA. Soluble in aliphatic, aromatic, and chlorinated hydrocarbons; esters; and ketones. Insoluble in alcohols and glycols; limited solubility in nitroparaffins. For low or zero VOC systems ENDEX™ 160 Hydrocarbon Resin is soluble in the VOC exempt solvents 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.

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Packaging
Pastilles, in multiwall paper bags (50 lbs, 22.7 kg net wt).

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 applicale 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 3 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.

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