

Picco™ A-120 Hydrocarbon Resin



Picco™ A-120 hydrocarbon resin is a low molecular weight, amber colored thermoplastic resin produced from petroleum-derived monomers that is polymerized under conditions that control its softening point within a narrow range. Being non-polar, it is characterized by its excellent resistance to acids, alkalis and moisture and is extremely water repellent. It shows good color stability and, when formulated with elastomers, a good balance of flex, tear, tack and adhesion properties. In addition, Picco A-120 has excellent solvent release, tack and tack retention, wide solubility and compatibility, good resistance to oxygen and UV light, provides excellent pigment wetting and can be used with both reinforcing and non-reinforcing fillers. Picco A-120 is a viscous fluid at rubber-milling temperatures, and aids compounding by reducing viscosity and by adding tack while on the rolls. These advantages, combined with improvement in mold flow during cure, are obtained without lowering the cured hardness of the finished product. This resin is particularly indicated as a processing and reinforcing agent in rubber compounds and as a binder in protective coatings. In styrenic block copolymer-based adhesives Picco A-120 preferentially associates with the styrenic end blocks, producing higher cohesion at temperatures up to 70°C without affecting tack and adhesion properties. Picco A-120 is also utilized frequently in EVA-based woodworking adhesives.

For further information regarding this product please refer to:

Synthomer Adhesive Technologies

eMail: Adhesive.Technologies@Synthomer.com

- Excellent pigment wetting
- Excellent resistance to acids, alkalis and moisture
- Non-reactive
- Reinforcing resin for styrene block copolymers
- Thermoplastic

Property	Typical Value	Unit	Method ¹
Ring and Ball Softening Point	125	°C	ASTM E 28
Color, Gardner	6		ASTM D 6166, 50% solids in toluene
Density at 25°C	1.08	kg/dm ³	
Molecular Weight, Mn	760	g/mol	GPC, using polystyrene standards, elution with THF
Molecular Weight, Mw	1280	g/mol	
Molecular Weight, Mz	2350	g/mol	
Polydispersity (Mw/Mn)	1.7		
Viscosity at 23°C	9	Pa.s	Haake C&P, 56% in Halterman Test Oil 6/9

¹ internal method based upon the specified norm

Applications

Caulks and Sealants, Roadmarking, Carpet, Additives, Graphics, Tapes, Metal coatings, Coatings, Other Construction Applications, Waterproofings, Other adhesives

Compatibility and Solubility

Compatible at all ratios, or in limited but practically useful proportions, with natural rubber and synthetic rubbers (SBR, SIS, SBS, SEBS),

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rosin, modified rosins and rosin esters, alkyds and drying oils, polar elastomers, epoxy resins, and chlorinated rubber, and limited compatibility with EVA (ethylene vinyl acetate) copolymers. Soluble at all useful proportions in aromatic, aliphatic, and chlorinated hydrocarbons; ink oils; benzyl alcohol; cyclohexanol; methyl ethyl ketone; esters; natural oils and fats. Insoluble in lower alcohols, acetone, and ethylene glycol.

Packaging

Picco™ A-120 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.

Picco™ A120 hydrocarbon resin material will remain within product specification limits, as mentioned under the heading "Product Specifications", 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, 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.