Technical Data Sheet

Picco™ 6100 Hydrocarbon Resin

Application/Uses

- Building and Construction
- Caulks and Sealants
- Contact Adhesives
- Footwear and Leather
- Graphic Arts
- Hot Melt Adhesives
- Packaging
- Solventborne Adhesives

Key Attributes

- Brittle thermoplastic flaked or pastillated solid
- Dark color
- Resistant to acid, alkali, and water

Product Description

Picco™ 6100 hydrocarbon resin is the lowest softening point product in the series of low molecular weight, non-polar, amber colored thermoplastic resins produced from petroleum derived aromatic monomers. It is suggested for use in elastomers, for production of economical pressure-sensitive adhesives, mastics and sealants based on styrene-butadiene rubber where color and heat stability are not critical, contact adhesive based on polychloroprene rubber, printing inks, paint and varnish, or as a processing aid in compounding of rubber. It can also be used as an endblock modifying resin for styrenic block copolymers to reduce melt viscosity while maintaining or improving shear resistance at or below 40°C in applications where color and heat stability are not critical.

Typical Properties

Property	Test Method	Typical Value, Units
Ring and Ball Softening Point	ASTM E 28	104°C
Color, Gardner [a]		11
Density		1.02 g/cc
Cloud Point [b]		
MMAP		30°C
DACP		10°C
OMS		75/58°C
Molecular Weight [c]		
M_z		5300
M_w		1800
M_n		550
M_w/M_n		3.3
Glass Transition Temperature (T_g) [d]		46°C
Melt Viscosity		
10 poise		167°C

100 poise	141°C
1000 poise	118°C

a *50% resins solids in toluene*

b *MMAP: cloud point measured in a 1:2 mixture of methylcyclohexane and aniline; DACP: cloud point measured in a 1:1 mixture of xylene and 4-methyl-2-pentanone; OMS: odorless mineral spirits cloud point; For more information see "Hydrocarbon Spectrum", WA-86*

c *Molecular weight measured via Gel Permeation Chromatography (GPC) using polystyrene standards*

d *midpoint*

Comments
PICCO 6100 Hydrocarbon Resin is stabilized with an antioxidant.

Compatibility and Solubility

Picco™ 6100 hydrocarbon resin is characterized by acid, alkali and water resistance; dark amber color; and a good balance of tack, adhesion, flex and tear properties when compounded with an appropriate elastomer. Picco™ 6100 is compatible in useful proportions with styrene-butadiene rubber (SBR), the polystyrene portions of styrenic block copolymers, rosin, modified rosins and rosin esters, alkyds and drying oils, ethylene-vinyl acetate copolymers with up to 28% vinyl acetate, epoxy resins, and chlorinated rubber. Picco™ 6100 is not compatible with all grades of these polymers at all ratios and the acceptability of a particular blend should be verified before use. It is soluble in aromatic, aliphatic, and chlorinated hydrocarbons; low kauri-butanol (KB) aliphatic ink oils; benzyl alcohol; cyclohexanol; methyl ethyl ketone. Picco™ 6100 is insoluble in lower alcohols, acetone, and ethylene glycol.

Packaging

Flake or pastillates in multi-wall kraft bags (50 lbs, 22.7 kg new wt) stacked 40 bags per pallet.

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.

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