



Product Data Sheet

Picco 5140 Hydrocarbon Resin

Picco 5140 hydrocarbon resin is one in a series of low molecular weight, non-polar, amber colored thermoplastic resins produced from petroleum-derived monomers, ranging in softening point from medium to high.

List of Applications

- Reinforcing agent for adhesives and plastics
- Rubber compounding extender
- Tackifier

Sales Specifications

| Property | Minimum | Maximum | Test Method |
|----------------------------------|---------|---------|---------------------|
| Softening point, °C, Ring & Ball | 135 | 145 | CASPI-A-AN-G-PP-085 |
| Color, Gardner, 50% in Toluene | — | 14 | CASPI-A-AN-G-AC-100 |

Compatibility and Solubility

Picco 5140 hydrocarbon resin is characterized by excellent resistance to acids, alkalis, and moisture; by good color stability; and, when formulated with elastomers, by a good balance of flex, tear, and adhesion properties.

Picco 5140 is compatible in useful proportions with styrene-butadiene rubber (SBR), rosin, modified rosins and rosin esters, alkyds and drying oils, polar elastomers, epoxy resins, and chlorinated rubber. It is soluble in aromatic, aliphatic, and chlorinated hydrocarbons; low kauri-butanol (KB) aliphatic ink oils; benzyl alcohol; cyclohexanol; and methyl ethyl ketone. *Picco* 5140 is insoluble in lower alcohols, acetone, and ethylene glycol.

FDA Status

Picco 5140 complies with requirements of the U. S. Food and Drug Administration (FDA) for use as specified in the Code of Federal Regulations, Title 21, subject to the limitations and requirements of each regulation under the following Section(s):

- 175.105 Adhesives
- 177.2600 Rubber Articles Intended for Repeated Use (not to exceed 30% by weight of rubber product)
- 178.3800 Preservatives for Wood (used singly or in combination so as to constitute not less than 50% of the solids)

The formulator must comply with all requirements of the FDA regulations, including conditions of use and extractive tolerances of the total compound or formula.

Packaging

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

Additives

Picco 5140 hydrocarbon resin is stabilized with an antioxidant.

Picco 5140 Hydrocarbon Resin

Typical Properties

| Property Data | Typical Values |
|--|------------------------|
| Softening Point, Ring & Ball | 141°C |
| Gardner Color, 50% in Toluene | 12 |
| Cloudpoint, MMAP | 23°C |
| Cloudpoint, DACP | 10°C |
| Cloudpoint, OMS | |
| Initial | 75°C |
| Full | 58°C |
| Density @ 25°C | 1.08 kg/L (9.0 lb/gal) |
| Glass Transition, T_g , Midpoint | 84°C |
| Melt Viscosity | |
| 10 poise | 210°C |
| 100 poise | 185°C |
| 1000 poise | 160°C |
| Molecular Weight (Gel Permeation Chromatography) | |
| M_n | 730 |
| M_w | 2300 |
| M_z | 6000 |

Storage

Flaked and crushed forms of resins may fuse, block, or lump during hot weather months, if stored near steam pipes or other sources of heat, and if stored for prolonged periods. Because of the extremely large surface area they present, flaked and crushed forms of 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 solubility of the resin in organic solvents. Accordingly, it is strongly recommended that strict control of inventory be observed at all times, taking care that the oldest material is used first.

■ NORTH AMERICA

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