

Technical Data Sheet

Piccotac™ 1100 Hydrocarbon Resin

Applications

- Adhesives/sealants-b&c
- Carpet construction
- Case & carton sealing closings
- Casting wax
- Labels non food contact
- Packaging tape
- Paints & coatings
- Polymer modification
- Protective coatings
- Road markings
- Roofing ingredients
- Specialty tape
- Tape non food contact
- Tires
- Wax ingredients
- Wire/cable

Key Attributes

- Aliphatic C5 resin
- Excellent adhesion to natural rubber based adhesives
- Excellent color and color stability
- Excellent peel and tack properties
- Limited compatibility with styrene-isoprene-styrene (SIS) block copolymers

Product Description

Piccotac™ 1100 hydrocarbon resin is a 100°C softening point, thermoplastic, low molecular weight, aliphatic C5 resin. Derived largely from mixed monomers of petroleum origin, it is characterized by its light color, excellent balance of tack and of adhesive and cohesive properties, heat resistance, and wide compatibility and solubility. Piccotac™ 1100 hydrocarbon resin is stabilized by addition of 0.10% antioxidant. It is designed primarily for use in pressure sensitive adhesives and hot melt adhesives and coatings.

Typical Properties

| Property ^a | Test Method ^b | Typical Value, Units ^c |
|---|--------------------------|-----------------------------------|
| General | | |
| Ring and Ball Softening Point | ASTM E 28 | 101 °C |
| Color, Gardner ^d | ASTM D 6166 | 3 |
| Cloud Point ^g | | |
| DACP | | 62 °C |
| MMAp | | 96 °C |
| Molecular Weight ^f | | |
| M _n | | 950 |
| M _w | | 2900 |
| M _w /M _n | | 3.0 |
| M _z | | 8000 |
| Melt Viscosity | | |
| 10 poise | | 170 °C |
| 100 poise | | 135 °C |
| 1000 poise | | 120 °C |
| Glass Transition Temperature (T _g) ^e | | 46 °C |

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^bUnless noted otherwise, the test method is ASTM.

^cUnits are in SI or US customary units.

^d50% in toluene.

^eGlass transition temperature by differential scanning calorimetry.

^fMolecular weight, z-average from gel permeation chromatography, elution with THF.

^gCloud point temperature from 2:1 Vol:Vol aniline-methylcyclohexane, Eastman method.

Compatibility and Solubility

Compatible in useful proportions, with natural and synthetic rubbers, low vinyl-acetate concentration EVA (ethylene-vinyl-acetate) copolymers, SIS (styrene-isoprene-styrene) block copolymers, amorphous poly-alpha olefins, paraffin and microcrystalline waxes. Soluble at all useful proportions in aliphatic, aromatic and chlorinated hydrocarbons, esters and ethers. Insoluble in alcohols, glycols and water.

Packaging

Piccotac™ 1100 is supplied in pastilles, in multi-wall paper bags (50 lbs, 22. 7 kg, net wt); and 1000 and 2000 lb bags, molten rail cars (160k lbs/truck) and molten tank trucks (42 k lbs/truck).

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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