

Technical Data Sheet

Poly-Pale™ Partially Dimerized Rosin

Applications

- Adhesives/sealants-b&c
- Bookbinding
- Caps & lids non-food contact
- Carpet construction
- Case & carton sealing closings
- Commerical printing inks
- Film modification
- Labels non food contact
- Packaging component films
- Packaging components non food contact
- Packaging tape
- Paints & coatings
- Polymer modification
- Protective coatings
- Road markings
- Roofing ingredients
- Solder flux
- Specialty tape
- Tape non food contact
- Tires
- Wax ingredients
- Wire/cable

Key Attributes

- Alcohol-soluble
- High softening point
- Non-crystalline
- Resistant to oxidation
- Thermoplastic rosin acid

Product Description

Poly-Pale™ resin is a pale, partially polymerized (dimerized) rosin. Compared with pale grades of regular wood, gum, or tall oil rosins, it has a higher softening point, higher viscosity (molten and in solution), much greater resistance to oxidation, and complete freedom from crystallizing when in solid form or in solution. Its many uses include the preparation of varnishes, driers, synthetic resins, ink vehicles, floor tile, rubber compounds, solder fluxes, and various adhesives and protective coatings.

Typical Properties

Property	Test Method	Typical Value, Units
General		
Ring and Ball Softening Point	ASTM E 28	103 °C
Color, Gardner ^d		8
Color, USRG Rosin Scale		WW
Acid Number (mg KOH/g)		146
Molecular Weight Distribution ^c		
M _n		313
M _w		353
M _w /M _n		1.13
M _z		422
Melt Viscosity, Brookfield Thermosel		
@ 100°C		100,800 cP
@ 120°C		4100 cP
@ 140°C		400 cP
@ 160°C		100 cP
@ 180°C		33 cP

Density @ 20°C	1.069 kg/L
Description, Base Resin	Partially Dimerized Gum Rosin

^cMolecular weight measured via Gel Permeation Chromatography (GPC) using polystyrene standards

^d50% resins solids in toluene or xylene

Compatibility and Solubility

Compatible with ethylcellulose, natural rubber, SBR (styrene-butadiene), polychloroprene, EVA (ethylene-vinyl acetate) copolymers, drying oils, alkyd resins, shellac, low molecular weight polyethylene, paraffin and microcrystalline waxes.

Soluble in aromatic, aliphatic and chlorinated hydrocarbons, esters, ketones, and higher molecular weight alcohols. Insoluble in methanol, ethanol, isopropanol and water.

Packaging

Packaged in aluminum-kraft-bags of 25 kg net, and supplied on shrink-wrapped pallets of 28 bags each.

Storage

Because of the extremely large surface area, flaked forms of resins are prone to gradual oxidation, some more so than others. This could result in darkening and /or could have an adverse effect on solubility in organic solvents. It is strongly recommended that strict control of inventory be observed at all times, taking care that the oldest material is used first. Recommended storage is in original packaging, dry, free from contamination, below 30°C.

Flaked forms of low to medium-softening point resins may fuse, block, or lump:

- (1) during hot-weather months,
- (2) if stored near steam pipes or other sources of heat, and
- (3) upon prolonged storage and compression.

Poly-Pale™ Partially Dimerized Rosin shelf-life for bag packaging is 18 months from production date; and the shelf-life of drum packaging is 18 months from production date, provided recommended storage conditions are observed.

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