

# Technical Data Sheet

## Piccolastic™ D125 Hydrocarbon Resin

### Applications

- Adhesives/sealants-b&c
- Bookbinding
- Carpet construction
- Case & carton sealing closings
- Casting wax
- Commercial printing inks
- Concrete
- Film modification
- Hygiene adhesives
- Labels non food contact
- Marine
- Packaging components non food contact
- Packaging tape
- Polymer modification
- Protective coatings
- Roofing
- Solvent borne packaging adhesives
- Specialty tape
- Tape non food contact
- Tires

### Key Attributes

- Light color
- Made from pure styrenic monomer
- Shock resistance

### Product Description

Piccolastic™ D125 hydrocarbon resin is an high molecular weight, light colored, polar, thermoplastic hydrocarbon resin. Derived from pure styrene monomer, it exhibits to a limited degree, properties normally associated with higher polymeric resins - i.e., toughness and resiliency. Although it is hard and tough, it is readily workable, retains some wetting qualities, and provides excellent resistance to water, chemicals, shock, oil, and grease. It can be used as a modifier for rubber and plastic compounds used in shoe construction and as a binder for xerographic toners. Piccolastic™ D125 is also useful to formulate glues used for solvent welding of styrenic plastics. In styrenic block copolymer-based systems Piccolastic™ D125 associates strongly with the styrene endblocks, reducing melt viscosity and cohesion without greatly affecting tack and adhesion properties. Piccolastic™ D125 is compatible with EVA grades with up to 20% vinyl acetate and will improve heat resistance and increase the melt viscosity of the system. Piccolastic™ D125 complies with many FDA regulations for applications involving direct contact with food. Compliance with a given regulation in a specific situation should be verified prior to use in a food contacting application.

### Typical Properties

Property <sup>a</sup>	Test Method <sup>b</sup>	Typical Value, Units <sup>c</sup>
<b>General</b>		
Ring and Ball Softening Point	ASTM E 28	127 °C
Color, Gardner <sup>e</sup>	ASTM D 6166	2
Cloud Point <sup>g</sup>		
DACP		<-40 °C
MMA <sup>h</sup>		13 °C
OMS		>180 °C
Molecular Weight <sup>f</sup>		
M <sub>n</sub>		1450
M <sub>w</sub>		41800
M <sub>w</sub> /M <sub>n</sub>		28.8
M <sub>z</sub>		238000

Density @ 25°C	1.05 kg/L (8.75 lb/gal)
Refractive Index @ 25°C	1.60
Melt Viscosity	
10 poise	265 °C
100 poise	185 °C
1000 poise	160 °C
Glass Transition Temperature (T <sub>g</sub> ) <sup>d</sup>	64 °C

<sup>a</sup>Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

<sup>b</sup>Unless noted otherwise, the test method is ASTM.

<sup>c</sup>Units are in SI or US customary units.

<sup>d</sup>Glass transition temperature by differential scanning calorimetry.

<sup>e</sup>50% in toluene.

<sup>f</sup>Molecular weight, z-average from gel permeation chromatography, elution with THF.

<sup>g</sup>Cloud point temperature from 2:1 Vol:Vol aniline-methylcyclohexane, Eastman method.

## Compatibility and Solubility

Compatible in useful proportions with chlorinated paraffins, coumarone indene resins, polystyrene and lower molecular weight aromatic resins, rosin and modified rosins, rosin esters, and SBR copolymers. Soluble in aromatic and chlorinated hydrocarbons, ketones, and ethers; insoluble in aliphatic hydrocarbons, alcohols, and glycols. For low or zero VOC systems Piccolastic™ D125 is soluble in the VOC exempt solvents t-butyl acetate and perchlorobenzenetetrafluoride (PCBTF) and will tolerate some acetone and/or methyl acetate as a diluent in solvent systems based on TBA and/or PCBTF. VOC exemptions and environmental regulations vary regionally and compliance with local standards should be verified before any claims about VOC content are made.

## Packaging

Pastilles, in multi-wall paper bags (50 lbs, 22.7 kg net wt) or in bulk boxes (1400 lbs, 635 kg net wt).

## 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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