

# Plastolyn™ 290 Hydrocarbon Resin



Plastolyn™ 290 hydrocarbon resin is a versatile, aromatic, water-white, very high softening point resin for use in polymer modification, adhesives, overprint lacquers, coatings and a variety of other applications. Recommended as a flow modifier in such polymers as polyvinylchloride (PVC), acrylonitrile-butadiene-styrene (ABS) and styrenic block copolymers. Its water white color and good economy, combined with superior heat and ultraviolet light (UV) stability compared with conventional C9 hydrocarbon resins, provide formulators a new level of quality without sacrificing competitiveness.

- Color stability
- Low color
- Made from purified aromatic monomers
- Very high softening point

Property	Typical Value	Unit	Method <sup>1</sup>
Ring and Ball Softening Point	140	°C	ASTM E 28
Color, Yellowness Index	6		ASTM E 313, 50% solids in toluene
MMAp cloud point	8	°C	from 1:2 mixture of methylcyclohexane and aniline
DACP cloud point	-44	°C	from 1:1 mixture of xylene and diacetone alcohol
Molecular Weight, Mn	1590	g/mol	GPC using polystyrene standards, elution with THF
Molecular Weight, Mw	4760	g/mol	
Molecular Weight, Mz	9250	g/mol	
Polydispersity (Mw/Mn)	2.9		
Melt Viscosity at 165 °C	1000	°C	Brookfield
Melt Viscosity at 190°C	1100	°C	
Melt Viscosity at 230°C	10	°C	
Glass Transition Temperature (Tg-midpoint)	84	°C	DSC, 20°C/minute

<sup>1</sup> internal method based upon the specified norm

## Applications

Roadmarking, Carpet, Caulks and Sealants, Correction fluids, Graphics, Labels, Additives, Packaging specialities, Metal coatings, PSA Packaging tapes, Speciality tapes, Tapes, Waterproofings

## Compatibility and Solubility

Compatible in useful proportions with chlorinated paraffins, polystyrene, polyvinylchloride (PVC), acrylonitrile-butadiene-styrene (ABS), rosin and modified rosins, rosin ester, styrene-butadiene rubber (SBR) and SBR block copolymers, as well as modifying the styrenic endblocks of all styrene-containing block copolymers.

Soluble in aromatic and chlorinated hydrocarbons, esters, and ketones. Insoluble in alcohols and glycols. Limited solubility in nitroparaffins. For low or zero VOC systems Plastolyn™ 290 is soluble in the VOC exempt solvents acetone, methyl acetate, t-butyl acetate (TBA) and perchlorobenzene tetrafluoride (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

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standards should be verified before any claims about VOC content are made.

## Packaging

Pastilles, in multiwall paper bags (50 lbs, 22.7 kg net weight).

## 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.

The useful life of this product can be affected by storage and handling conditions. When stored in the original unopened container in an enclosed area and protected from moisture, extreme temperatures and contamination, the shelf life of this product is estimated to continue to meet applicable sales specifications for 3 years from the date of manufacture. Shelf life is a guide not an absolute value. The product should be reanalyzed for critical properties at the end of its shelf life to see if it meets specification for use.

## Comments

Properties reported here are typical of average lots. Synthomer makes no representation that the material in any particular shipment will conform exactly to the values given.