

Product Denomination : **PORCUS SERIES**  
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## DEFINATION

Porcus Series are synthetic hydrocarbon polymers made by polymerization of C4 olefins (primarily isobutene), and are available in a wide range of viscosities.

## CHARACTERISTICS

- Permanently non-drying
- Colorless (water white) and non-staining
- Soluble in a wide range of organic solvents
- Compatible with a wide range of organic materials
- Completely hydrophobic
- Tacky
- Practically non-toxic and non-phytotoxic
- Stable to light and air (i.e. oxidatively stable) under ambient conditions
- Very low moisture transmission rates
- Low to negligible evaporation loss at ambient temperature

## APPLICATIONS

- PORCUS SERIES polybutenes are vital ingredients in many pressure-sensitive adhesives (PSAs) and hot-melt adhesives (HMAs). They are very useful for modifying properties such as the tack, softness, bond strength, cohesive strength and water resistance of adhesives.
- PORCUS SERIES polybutenes are non-conductive and hydrophobic, and thus are ideally suited for a variety of electrical insulation applications such as Impregnant for Dielectrics, Cable Oils, Cable Gels and Potting Compounds and Cable Insulation Their chemical structure and low chloride content, as well as low levels of impurities, make them highly resistant to oxidation and gas evolution under electrical stress.
- **Agriculture:** PORCUS SERIES polybutenes are used in the continuing fight against pests which threaten agricultural crops.
- **Polymer Modification:** The impact strength, flexibility, and melt flow rate of many thermoplastic resins can be increased with PORCUS SERIES polybutenes. Polybutenes plasticize polypropylene, polystyrene, ethylene-vinyl acetate copolymer resins, ester gums, and polyterpene.
- **Rubber Modification:** PORCUS SERIES polybutenes are used as extenders and plasticizers for a variety of vulcanized elastomers including natural rubber, butyl rubber, polyisoprene, polybutadiene, ethylene-alpha olefin rubber and styrenebutadiene rubber (SBR). Unlike mineral oil, polybutenes cannot be easily extracted from vulcanized elastomers by solvents, and are resistant to exudation by heat ageing. Hence polybutenes impart their properties permanently to the rubber.
- **Coatings:** PORCUS SERIES polybutenes are used as a component in many special purpose paints and coatings. Their advantages in such applications include water resistance, low colour, plasticization of the final film, excellent adhesion, and ability to replace volatile solvents.
- **Personal Care:** PORCUS SERIES polybutenes are pure, clear and practically non-toxic polymers, and most grades have regulatory approval for cosmetics applications. They are formulated into personal care products such as lip gloss and roll-on deodorants.

- **Asphalt Modification:** The incorporation of polybutenes into asphalt improves weathering, flexibility and adhesion in a number of uses such as roofing compounds, coatings for multi-wall bags, and adhesives. Asphalts modified with polybutene can also be used in road construction to give improved low temperature flexibility and better aggregate/binder adhesion.

**TECHNICAL PROPERTIES**

Properties	Test Methods	PORCUS 141	PORCUS 772	PORCUS 8142
Appearance	N/A	C&B	C&B	C&B
Color (APHA)	ASTM D 1209	10	10	10
Specific Gravity @15°C g/cm <sup>3</sup>	ASTM D 4052	0.86	0.883	0.901
Viscosity @100 °C mm <sup>2</sup> /s (cSt)	ASTM D 445	13	78	800
Flash Point, °C	ASTM D 92	154	220	226
Pour Point, °C	ASTM D 97	-30	-14	5
Acid Number , mg KOH/g	ASTM D 974	0.007	0.007	0.007
Average Molecular Weight, Daltons	SM 180-6	470	717	1411
Water Content, ppm	ASTM D 6304	Max. 40	Max. 40	Max. 40

\* The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modification is reserved.