

## BASF Palatinol® N Diisononyl Phthalate

Category : Other Engineering Material , Additive/Filler for Polymer

### Material Notes:

Formula: C28H42O4  
 Description: Palatinol® N is an excellent primary plasticizer for plasticized vinyl articles. Its compatibility with vinyl is good even in high concentrations. Palatinol N in vinyl compounds provides good low temperature and low volatility performance. It has excellent rheological properties in plastisols and offers improved dry blend times. The mechanical properties of vinyl compounds plasticized with Palatinol N are comparable to products plasticized with other diisononyl phthalates. The unique nature of this ester results in lower volatility, improved processibility and better low temperature performance.  
 Applications: The excellent resistance to water and outdoor exposure by vinyl plasticized with Palatinol N is an advantage in the manufacture of articles for the housing and construction markets. By virtue of its contribution to low viscosity and good viscosity stability, Palatinol N is suitable for plastisols including: spray coating, dipping, casting and slush molding.  
 Information provided by BASF

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Palatinol-N-Diisononyl-Phthalate.php](http://www.lookpolymers.com/polymer_BASF-Palatinol-N-Diisononyl-Phthalate.php)

Physical Properties	Metric	English	Comments
Density	0.970 - 0.976 g/cc	0.0350 - 0.0353 lb/in <sup>3</sup>	ASTM D4052
Solubility of Water	0.0020 %	0.0020 %	
Solubility in Water	<= 1.0e-6 %	<= 1.0e-6 %	
Viscosity	28 cP	28 cP	Absolute
	@Temperature 40.0 °C	@Temperature 104 °F	
	79 cP	79 cP	Absolute
	@Temperature 20.0 °C	@Temperature 68.0 °F	
	345 cP	345 cP	Absolute
	@Temperature 0.000 °C	@Temperature 32.0 °F	
Molecular Weight	418 g/mol	418 g/mol	

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	69	69	Plasticizer conc. in vinyl film 70 phr; ASTM D 2240
	@Time 15.0 sec	@Time 0.00417 hour	
	82	82	Plasticizer conc. in vinyl film 50 phr; ASTM D 2240
	@Time 15.0 sec	@Time 0.00417 hour	
	89	89	Plasticizer conc. in vinyl film 40 phr; ASTM D 2240
	@Time 15.0 sec	@Time 0.00417 hour	
	13.0 MPa	1890 psi	Plasticizer conc. in vinyl film 70 phr;

Tensile Strength Mechanical Properties	Metric	English	ASTM D638 Comments
	16.6 MPa	2410 psi	Plasticizer conc. in vinyl film 50 phr; ASTM D638
	17.8 MPa	2580 psi	Plasticizer conc. in vinyl film 40 phr; ASTM D638
Elongation at Break	280 %	280 %	Plasticizer conc. in vinyl film 40 phr; ASTM D638
	310 %	310 %	Plasticizer conc. in vinyl film 50 phr; ASTM D638
	350 %	350 %	Plasticizer conc. in vinyl film 70 phr; ASTM D638
100% Modulus	0.0101 GPa	1.47 ksi	Plasticizer conc. in vinyl film 50 phr; ASTM D638
	0.01410 GPa	2.045 ksi	Plasticizer conc. in vinyl film 40 phr; ASTM D638
	0.0610 GPa	8.85 ksi	Plasticizer conc. in vinyl film 70 phr; ASTM D638
Torsional Stiffness	310 MPa	45000 psi	Plasticizer conc. in vinyl film 40 phr; ASTM D1043
	@Temperature -9.00 °C	@Temperature 15.8 °F	
	310 MPa	45000 psi	Plasticizer conc. in vinyl film 50 phr; ASTM D1043
	@Temperature -22.0 °C	@Temperature -7.60 °F	
	310 MPa	45000 psi	Plasticizer conc. in vinyl film 70 phr; ASTM D1043
	@Temperature -38.0 °C	@Temperature -36.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	700 $\mu\text{m}/\text{m}\cdot\text{°C}$	389 $\mu\text{in}/\text{in}\cdot\text{°F}$	
Boiling Point	252 °C	486 °F	
	@Pressure 600000 MPa	@Pressure 8.70e+7 psi	
Pour Point	-49.0 °C	-56.2 °F	
Brittleness Temperature	-42.0 °C	-43.6 °F	Plasticizer conc. in vinyl film 70 phr; ASTM D746
	-31.0 °C	-23.8 °F	Plasticizer conc. in vinyl film 50 phr; ASTM D746
	-23.0 °C	-9.40 °F	Plasticizer conc. in vinyl film 40 phr; ASTM D746
Flash Point	240 °C	464 °F	

Optical Properties	Metric	English	Comments
Refractive Index	1.486	1.486	

Chemical Properties	Metric	English	Comments
Total Acid Number	<= 0.070	<= 0.070	[mg KOH/g]; ASTM D1045

Processing Properties	Metric	English	Comments
Moisture Content	0.10 %	0.10 %	ASTM E203

Descriptive Properties	Value	Comments
Color	<25	APAH, ASTM D5386
Composition	Ester content	>99.6%, ASTM D3465

## Contact Songhan Plastic Technology Co.,Ltd.

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