

## Ascend Performance Materials VYDYNE® R220 Nylon, Mineral Reinforced

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Mineral Filled, Impact Grade

### Material Notes:

Typical property data. VYDYNE is a registered trademark of Solutia Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Ascend-Performance-Materials-VYDYNE-R220-Nylon-Mineral-Reinforced.php](http://www.lookpolymers.com/polymer_Ascend-Performance-Materials-VYDYNE-R220-Nylon-Mineral-Reinforced.php)

Physical Properties	Metric	English	Comments
Density	1.46 g/cc	0.0527 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.80 %	0.80 %	24 hours; ASTM D570
Linear Mold Shrinkage	0.012 - 0.022 cm/cm	0.012 - 0.022 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	92	92	ASTM D785
Hardness, Rockwell R	117	117	ASTM D785
Tensile Strength, Yield	83.0 MPa	12000 psi	ASTM D638
Elongation at Break	13 %	13 %	ASTM D638
Tensile Modulus	5.90 GPa	856 ksi	D638
Flexural Yield Strength	124 MPa	18000 psi	ASTM D790
Flexural Modulus	5.50 GPa	798 ksi	ASTM D790
Izod Impact, Notched	0.600 J/cm @Thickness 3.17 mm	1.12 ft-lb/in @Thickness 0.125 in	ASTM D256
Gardner Impact	14.0 J	10.3 ft-lb	ASTM D3673
Coefficient of Friction	0.17	0.17	ASTM D1894
Coefficient of Friction, Static	0.22	0.22	ASTM D1894
Taber Abrasion, mg/1000 Cycles	12	12	CS17 Wheel, 1 kg load; ASTM D1044

Thermal Properties	Metric	English	Comments
CTE, linear	49.0 µm/m-°C @Temperature -40.0 - 82.0 °C	27.2 µin/in-°F @Temperature -40.0 - 180 °F	
Specific Heat Capacity	1.50 J/g-°C	0.359 BTU/lb-°F	Mfr. internal test

Thermal Properties	Metric	English	Comments
Melting Point	249 °C	480 °F	ASTM D1525
Deflection Temperature at 0.46 MPa (66 psi)	221 °C @Thickness 3.17 mm	430 °F @Thickness 0.125 in	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	160 °C @Thickness 3.17 mm	320 °F @Thickness 0.125 in	Unannealed; ASTM D648
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	7.70e+15 ohm-cm	7.70e+15 ohm-cm	ASTM D257
Dielectric Constant	3.7 @Frequency 1e+6 Hz	3.7 @Frequency 1e+6 Hz	ASTM D150
	3.9 @Frequency 1000 Hz	3.9 @Frequency 1000 Hz	ASTM D150
	4.0 @Frequency 100 Hz	4.0 @Frequency 100 Hz	ASTM D150
Dielectric Strength	15.9 kV/mm	404 kV/in	Step by step; ASTM D149
	19.3 kV/mm	490 kV/in	Short Time; ASTM D149
Dissipation Factor	0.0080 @Frequency 100 Hz	0.0080 @Frequency 100 Hz	ASTM D150
	0.011 @Frequency 1000 Hz	0.011 @Frequency 1000 Hz	ASTM D150
	0.015 @Frequency 1e+6 Hz	0.015 @Frequency 1e+6 Hz	ASTM D150
Arc Resistance	139 sec	139 sec	ASTM D495

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China