

## ALM PA 620-MF Mineral Fiber Filled Nylon 12 SLS Prototyping Polymer

Category : Polymer , Rapid Prototyping Polymer , Thermoplastic , Nylon , Nylon 12

### Material Notes:

Information provided by Advanced Laser Materials (ALM).

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ALM-PA-620-MF-Mineral-Fiber-Filled-Nylon-12-SLS-Prototyping-Polymer.php](http://www.lookpolymers.com/polymer_ALM-PA-620-MF-Mineral-Fiber-Filled-Nylon-12-SLS-Prototyping-Polymer.php)

| Physical Properties | Metric                                              | English                                             | Comments                              |
|---------------------|-----------------------------------------------------|-----------------------------------------------------|---------------------------------------|
| Bulk Density        | 0.460 g/cc                                          | 0.0166 lb/in <sup>3</sup>                           | ASTM D1895                            |
| Density             | 1.20 g/cc                                           | 0.0434 lb/in <sup>3</sup>                           | Sintered Part; ASTM D792              |
| Particle Size       | 55 µm                                               | 55 µm                                               | Average D50; Laser Diffraction        |
|                     | 30 - 100 µm                                         | 30 - 100 µm                                         | Range (D10 to D90); Laser Diffraction |
| Melt Flow           | 50 g/10 min<br>@Load 5.00 kg,<br>Temperature 235 °C | 50 g/10 min<br>@Load 11.0 lb,<br>Temperature 455 °F | 3 min.; ASTM D1238                    |

| Mechanical Properties     | Metric    | English       | Comments                |
|---------------------------|-----------|---------------|-------------------------|
| Tensile Strength at Break | 52.0 MPa  | 7540 psi      | XY direction; ASTM D638 |
| Elongation at Break       | 4 %       | 4 %           | XY direction; ASTM D638 |
| Tensile Modulus           | 5.70 GPa  | 827 ksi       | XY direction; ASTM D638 |
| Flexural Modulus          | 4.55 GPa  | 660 ksi       | XY direction; ASTM D790 |
| Izod Impact, Notched      | 37.4 J/cm | 70.1 ft-lb/in | ASTM D256               |
| Izod Impact, Unnotched    | 310 J/cm  | 581 ft-lb/in  | ASTM D256               |

| Thermal Properties                          | Metric | English | Comments   |
|---------------------------------------------|--------|---------|------------|
| Melting Point                               | 184 °C | 363 °F  | ASTM D3418 |
| Deflection Temperature at 0.46 MPa (66 psi) | 184 °C | 363 °F  | ASTM D648  |
| Deflection Temperature at 1.8 MPa (264 psi) | 179 °C | 354 °F  | ASTM D648  |

| Electrical Properties | Metric         | English        | Comments                |
|-----------------------|----------------|----------------|-------------------------|
| Volume Resistivity    | 6.7e+15 ohm-cm | 6.7e+15 ohm-cm | 50% RH; 500V; ASTM D257 |
| Surface Resistance    | 5.2e+15 ohm    | 5.2e+15 ohm    | 50% RH; 500V; ASTM D257 |

| Electrical Properties | Metric | English | Comments               |
|-----------------------|--------|---------|------------------------|
| Electrical Properties |        |         | 50 °C, 500V, ASTM D150 |

**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