

# Grilamid® L 20A Z

Polyamide 12

EMS-GRIVORY

## Message:

Grilamid® L 20A Z is a Polyamide 12 (Nylon 12) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for extrusion.

Important attributes of Grilamid® L 20A Z are:

Flame Rated

RoHS Compliant

Impact Resistant

Medium Viscosity

Typical applications include:

Automotive

Consumer Goods

Electrical/Electronic Applications

Hose/Tubing

Industrial Applications

| General Information |      |                                    |                   |             |
|---------------------|------|------------------------------------|-------------------|-------------|
| Features            |      | High Impact Resistance             |                   |             |
|                     |      | Hydrolysis Resistant               |                   |             |
|                     |      | Medium Viscosity                   |                   |             |
| Uses                |      | Automotive Applications            |                   |             |
|                     |      | Consumer Applications              |                   |             |
|                     |      | Electrical/Electronic Applications |                   |             |
|                     |      | Hydraulic Applications             |                   |             |
|                     |      | Industrial Applications            |                   |             |
|                     |      | Pneumatic Applications             |                   |             |
|                     |      | Power/Other Tools                  |                   |             |
|                     |      | Sporting Goods                     |                   |             |
|                     |      | Tubing                             |                   |             |
|                     |      | Wire & Cable Applications          |                   |             |
| RoHS Compliance     |      | RoHS Compliant                     |                   |             |
| Forms               |      | Granules                           |                   |             |
| Processing Method   |      | Extrusion                          |                   |             |
| Physical            | Dry  | Conditioned                        | Unit              | Test Method |
| Density             | 1.00 | --                                 | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage   |      |                                    |                   | ISO 294-4   |
| Across Flow         | 1.2  | --                                 | %                 |             |
| Flow                | 0.70 | --                                 | %                 |             |
| Water Absorption    |      |                                    |                   | ISO 62      |
| Saturation, 23°C    | 1.5  | --                                 | %                 |             |

|                                        |             |             |                   |                      |
|----------------------------------------|-------------|-------------|-------------------|----------------------|
| Equilibrium, 23°C, 50% RH              | 0.70        | --          | %                 |                      |
| Hardness                               | Dry         | Conditioned | Unit              | Test Method          |
| Shore Hardness (Shore D, 15 sec)       | --          | 70          |                   | ISO 868              |
| Mechanical                             | Dry         | Conditioned | Unit              | Test Method          |
| Tensile Modulus                        | 1200        | 900         | MPa               | ISO 527-2            |
| Tensile Stress                         |             |             |                   | ISO 527-2            |
| Yield                                  | 40.0        | 30.0        | MPa               |                      |
| Break                                  | --          | 45.0        | MPa               |                      |
| Tensile Strain (Yield)                 | 15          | 10          | %                 | ISO 527-2            |
| Nominal Tensile Strain at Break        | --          | 45          | %                 | ISO 527-2            |
| Impact                                 | Dry         | Conditioned | Unit              | Test Method          |
| Charpy Notched Impact Strength         |             |             |                   | ISO 179/1eA          |
| -30°C                                  | --          | 15          | kJ/m <sup>2</sup> |                      |
| 23°C                                   | --          | 70          | kJ/m <sup>2</sup> |                      |
| Charpy Unnotched Impact Strength       |             |             |                   | ISO 179/1eU          |
| -30°C                                  | No Break    | No Break    |                   |                      |
| 23°C                                   | No Break    | No Break    |                   |                      |
| Thermal                                | Dry         | Conditioned | Unit              | Test Method          |
| Heat Deflection Temperature            |             |             |                   |                      |
| 0.45 MPa, Unannealed                   | 85.0        | --          | °C                | ISO 75-2/B           |
| 1.8 MPa, Unannealed                    | 45.0        | --          | °C                | ISO 75-2/A           |
| Continuous Use Temperature             |             |             |                   | Internal Method      |
| -- <sup>1</sup>                        | 90.0 to 110 | --          | °C                |                      |
| -- <sup>2</sup>                        | 150         | --          | °C                |                      |
| Melting Temperature <sup>3</sup>       | 178         | --          | °C                | ISO 11357-3          |
| CLTE                                   |             |             |                   | ISO 11359-2          |
| Flow                                   | 1.2E-4      | --          | cm/cm/°C          |                      |
| Transverse                             | 1.4E-4      | --          | cm/cm/°C          |                      |
| Electrical                             | Dry         | Conditioned | Unit              | Test Method          |
| Surface Resistivity                    | --          | 1.0E+12     | ohms              | IEC 60093            |
| Volume Resistivity                     | --          | 1.0E+13     | ohms·cm           | IEC 60093            |
| Electric Strength                      | --          | 28          | kV/mm             | IEC 60243-1          |
| Comparative Tracking Index             | --          | 600         | V                 | IEC 60112            |
| Flammability                           | Dry         | Conditioned | Unit              | Test Method          |
| Flammability Classification (0.800 mm) | HB          | --          |                   | IEC 60695-11-10, -20 |
| Additional Information                 | Dry         | Conditioned |                   | Test Method          |

|          |                       |    |          |
|----------|-----------------------|----|----------|
| ISO Type | PA12-HI, MHR, 22-010N | -- | ISO 1874 |
| NOTE     |                       |    |          |
| 1.       | Long Term             |    |          |
| 2.       | Short Term            |    |          |
| 3.       | 10°C/min              |    |          |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519  
Phone: +86 13424755533  
Email: sales@su-jiao.com  
No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT