

## Technical Data

### Product Description

Permanently antistatic and electrically conductive VESTAMID® polyamide 12 compounds

Characterization: medium viscosity, heat and light-stabilized, increased cold impact strength, with processing aid; especially designed for parts meeting EN 50014

Applications: antistatic and electrically conductive injection molded or extruded parts for use in areas prone to explosion such as coal mining and other industries, e.g., housings for explosion-protected measurement, fans for electric motors, housings for electric switches, chair castors, loudspeaker boxes, telephone and radio equipment, profiles for assembly lines, also with electric shock protection

In general, it can be said that long-chain, semi-crystalline polyamides absorb little water, are resistant to polar and non-polar solvents, exhibit low creep behavior and high impact resistance and can be used in a wide temperature range. Virtually no other polymer material in this price range exhibits these properties.

### General

|                           |   |  |  |
|---------------------------|---|--|--|
| Material Status           | • Commercial: Active  |  |  |
| Literature <sup>1</sup>   | <ul style="list-style-type: none"> <li>• <a href="#">Processing - Vestamid (English)</a></li> <li>• <a href="#">Technical Datasheet (English)</a></li> </ul>  |  |  |
| Search for UL Yellow Card | <ul style="list-style-type: none"> <li>• <a href="#">Evonik Industries AG</a></li> <li>• <a href="#">VESTAMID® L</a></li> </ul>   |  |  |
| Availability              | • Europe  | • North America  |  |
| Additive                  | • Heat Stabilizer   | • Processing Aid   | • UV Stabilizer  |
| Features                  | <ul style="list-style-type: none"> <li>• Abrasion Resistant</li> <li>• Antistatic</li> <li>• Electrically Conductive</li> <li>• Excellent Processability</li> <li>• Fatigue Resistant</li> <li>• Food Contact Acceptable</li> <li>• Fuel Resistant</li> </ul> | <ul style="list-style-type: none"> <li>• Grease Resistant</li> <li>• Heat Stabilized</li> <li>• High ESCR (Stress Crack Resist.)</li> <li>• High Impact Resistance</li> <li>• Light Stabilized</li> <li>• Low Friction</li> <li>• Low Temperature Impact Resistance</li> </ul> | <ul style="list-style-type: none"> <li>• Low to No Water Absorption</li> <li>• Medium Viscosity</li> <li>• Noise Damping</li> <li>• Oil Resistant</li> <li>• Semi Crystalline</li> <li>• Solvent Resistant</li> <li>• Vibration Damping</li> </ul> |
| Uses                      | <ul style="list-style-type: none"> <li>• Electrical/Electronic Applications</li> <li>• Housings</li> </ul>  | <ul style="list-style-type: none"> <li>• Mining Applications</li> <li>• Profiles</li> </ul>  |  |
| Agency Ratings            | • EU 10/2011  | • FDA 21 CFR 177.1500  |  |
| Appearance                | • Black   | • Colors Available   | • Natural Color  |
| Forms                     | • Granules  |  |  |
| Processing Method         | • Injection Molding   |  |  |

| Physical                  | Nominal Value Unit     | Test Method |
|---------------------------|------------------------|-------------|
| Density                   | 1.08 g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage         |                        | ISO 294-4   |
| Across Flow               | 1.5 %                  |             |
| Flow                      | 1.4 %                  |             |
| Water Absorption          |                        | ISO 62      |
| Saturation, 23°C          | 1.5 %                  |             |
| Equilibrium, 23°C, 50% RH | 0.70 %                 |             |
| Mechanical                | Nominal Value Unit     | Test Method |
| Tensile Modulus           | 1400 MPa               | ISO 527-1   |
| Tensile Stress (Yield)    | 36.0 MPa               | ISO 527-2   |
| Tensile Strain            |                        | ISO 527-2   |
| Yield                     | 6.0 %                  |             |
| Break                     | > 50 %                 |             |



**VESTAMID® L L-R7-MHI**

Polyamide 12

**Evonik Industries AG****PROSPECTOR®**

www.ulprospector.com

| Impact                            | Nominal Value Unit   | Test Method          |
|-----------------------------------|----------------------|----------------------|
| Charpy Notched Impact Strength    |                      | ISO 179/1eA          |
| -30°C, Complete Break             | 12 kJ/m <sup>2</sup> |                      |
| 23°C, Partial Break               | 60 kJ/m <sup>2</sup> |                      |
| Charpy Unnotched Impact Strength  |                      | ISO 179/1eU          |
| -30°C                             | No Break             |                      |
| 23°C                              | No Break             |                      |
| Thermal                           | Nominal Value Unit   | Test Method          |
| Deflection Temperature Under Load |                      |                      |
| 0.45 MPa, Unannealed              | 130 °C               | ISO 75-2/B           |
| 1.8 MPa, Unannealed               | 50.0 °C              | ISO 75-2/A           |
| Vicat Softening Temperature       |                      |                      |
| --                                | 140 °C               | ISO 306/B            |
| --                                | 175 °C               | ISO 306/A            |
| Melting Temperature <sup>3</sup>  | 178 °C               | ISO 11357-3          |
| CLTE - Flow (23 to 55°C)          | 1.7E-4 cm/cm/°C      | ISO 11359-2          |
| Electrical                        | Nominal Value Unit   | Test Method          |
| Volume Resistivity                | 1.0E+7 ohms·cm       | IEC 60093            |
| Insulation Resistance             | 1.0E+7 ohms          | IEC 60167            |
| Flammability                      | Nominal Value Unit   | Test Method          |
| Flammability Classification       |                      | IEC 60695-11-10, -20 |
| 1.6 mm                            | HB                   |                      |
| 3.2 mm                            | HB                   |                      |
| Additional Information            | Nominal Value Unit   | Test Method          |
| ISO Shortname                     | PA12-HI, MHZ, 16-010 | ISO 1874             |

**Notes**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 2nd heating



# VESTAMID® L L-R7-MHI

Polyamide 12

Evonik Industries AG

# PROSPECTOR®

[www.ulprospector.com](http://www.ulprospector.com)

## Where to Buy

### Supplier

#### Evonik Industries AG

Essen, Essen Germany

Telephone: +49-201-177-01

Web: <https://corporate.evonik.com/en>

### Distributor

#### Amco Polymers

Telephone: 800-262-6685

Web: <http://www.amcopolymers.com/>

Availability: North America

#### Chase Plastic Services, Inc.

*Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here: <http://www.chaseplastics.com/contact/locations>*

Telephone: 800-232-4273

Web: <http://www.chaseplastics.com/>

Availability: North America

