

# Grilon® CR 8

Polyamide 6/12 Copolymer

EMS-GRIVORY

## Message:

Grilon® CR 8 is a Polyamide 6/12 Copolymer (Nylon 6/12) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for blown film, cast film, extrusion, or film extrusion.

Important attributes of Grilon® CR 8 are:

- RoHS Compliant
- Copolymer
- Food Contact Acceptable
- Good Flexibility
- High Viscosity

Typical applications include:

- Film
- Food Contact Applications
- Packaging

| General Information |                                             |             |      |             |
|---------------------|---------------------------------------------|-------------|------|-------------|
| Features            | Barrier Resin                               |             |      |             |
|                     | Copolymer                                   |             |      |             |
|                     | Food Contact Acceptable                     |             |      |             |
|                     | Good Flexibility                            |             |      |             |
|                     | High Viscosity                              |             |      |             |
| Uses                | Cast Film                                   |             |      |             |
|                     | Film                                        |             |      |             |
|                     | Oriented Film                               |             |      |             |
|                     | Packaging                                   |             |      |             |
| Agency Ratings      | EU Food Contact, Unspecified Rating         |             |      |             |
| RoHS Compliance     | RoHS Compliant                              |             |      |             |
| Appearance          | Clear/Transparent                           |             |      |             |
| Forms               | Granules                                    |             |      |             |
| Processing Method   | Blown Film                                  |             |      |             |
|                     | Cast Film                                   |             |      |             |
|                     | Extrusion                                   |             |      |             |
|                     | Film Extrusion                              |             |      |             |
| Multi-Point Data    | Isothermal Stress vs. Strain (ISO 11403-1)  |             |      |             |
|                     | Secant Modulus vs. Strain (ISO 11403-1)     |             |      |             |
|                     | Shear Modulus vs. Temperature (ISO 11403-1) |             |      |             |
|                     | Viscosity vs. Shear Rate (ISO 11403-2)      |             |      |             |
| Physical            | Dry                                         | Conditioned | Unit | Test Method |

|                                              |                     |             |                                            |                 |
|----------------------------------------------|---------------------|-------------|--------------------------------------------|-----------------|
| Density                                      | 1.10                | --          | g/cm <sup>3</sup>                          | ISO 1183        |
| Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)   | 120                 | --          | cm <sup>3</sup> /10min                     | ISO 1133        |
| Water Absorption                             |                     |             |                                            | ISO 62          |
| Saturation, 23°C                             | 8.0                 | --          | %                                          |                 |
| Equilibrium, 23°C, 50% RH                    | 2.0                 | --          | %                                          |                 |
| Mechanical                                   | Dry                 | Conditioned | Unit                                       | Test Method     |
| Tensile Modulus                              | --                  | 500         | MPa                                        | ISO 527-2       |
| Films                                        | Dry                 | Conditioned | Unit                                       | Test Method     |
| Tensile Stress                               |                     |             |                                            | ISO 527-3       |
| MD : Yield                                   | 28.0                | --          | MPa                                        |                 |
| TD : Yield                                   | 28.0                | --          | MPa                                        |                 |
| MD : Break                                   | 70.0                | --          | MPa                                        |                 |
| TD : Break                                   | 70.0                | --          | MPa                                        |                 |
| Tensile Elongation                           |                     |             |                                            | ISO 527-3       |
| MD : Yield                                   | 10                  | --          | %                                          |                 |
| TD : Yield                                   | 10                  | --          | %                                          |                 |
| MD : Break                                   | 900                 | --          | %                                          |                 |
| TD : Break                                   | 900                 | --          | %                                          |                 |
| Elmendorf Tear Strength                      |                     |             |                                            | ISO 6383-2      |
| MD                                           | 20                  | --          | N                                          |                 |
| TD                                           | 20                  | --          | N                                          |                 |
| Trouser Tear Resistance                      |                     |             |                                            | ISO 6383-1      |
| MD                                           | 65.0                | --          | N/mm                                       |                 |
| TD                                           | 65.0                | --          | N/mm                                       |                 |
| Water Vapor Transmission Rate (23°C, 85% RH) | 15                  | --          | g/m <sup>2</sup> /24 hr                    | DIS 15106-1/-2  |
| Oxygen Transmission Rate                     |                     |             |                                            | DIS 15105-1/-2  |
| 23°C <sup>1</sup>                            | 80                  | --          | cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr |                 |
| 23°C <sup>2</sup>                            | 90                  | --          | cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr |                 |
| Carbon Dioxide Transmission Rate             |                     |             |                                            | DIS 15105-1/-2  |
| 23°C <sup>3</sup>                            | 800                 | --          | cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr |                 |
| 23°C <sup>4</sup>                            | 300                 | --          | cm <sup>3</sup> /m <sup>2</sup> /bar/24 hr |                 |
| Gelboflex test                               | 100                 | --          | holes/m <sup>2</sup>                       | Internal Method |
| ISO Type                                     | PA 6/12, FT, 16-020 | --          |                                            | ISO 1874        |
| Thermal                                      | Dry                 | Conditioned | Unit                                       | Test Method     |
| Melting Temperature <sup>5</sup>             | 190                 | --          | °C                                         | ISO 11357-3     |
| Optical                                      | Dry                 | Conditioned |                                            | Test Method     |
| Gloss (60°)                                  | 130                 | --          |                                            | ISO 2813        |
| NOTE                                         |                     |             |                                            |                 |
| 1.                                           | 0% RH               |             |                                            |                 |

|    |          |
|----|----------|
| 2. | 85% RH   |
| 3. | 85% RH   |
| 4. | 0% RH    |
| 5. | 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

