

# Leona™ CR103

Polyamide 66

Asahi Kasei Chemicals Corporation

Message:

Leona™ CR103 is a Polyamide 66 (Nylon 66) product filled with mineral. It is available in Africa & Middle East, Asia Pacific, Europe, or North America. Applications of Leona™ CR103 include automotive, electrical/electronic applications, engineering/industrial parts and industrial applications. Characteristics include:  
Flame Rated  
Good Dimensional Stability  
Heat Stabilizer  
Lubricated

| General Information    |                                    |
|------------------------|------------------------------------|
| Filler / Reinforcement | Mineral                            |
| Additive               | Heat Stabilizer                    |
|                        | Lubricant                          |
| Features               | Good Dimensional Stability         |
|                        | Heat Stabilized                    |
|                        | Low Friction                       |
|                        | Lubricated                         |
| Uses                   | Automotive Applications            |
|                        | Electrical/Electronic Applications |
|                        | Industrial Applications            |
|                        | Structural Parts                   |

| Physical                  | Dry         | Conditioned | Unit              | Test Method           |
|---------------------------|-------------|-------------|-------------------|-----------------------|
| Specific Gravity          | 1.45        | --          | g/cm <sup>3</sup> | ASTM D792, ISO 1183   |
| Molding Shrinkage - Flow  | 0.50 to 1.1 | --          | %                 | Internal Method       |
| Water Absorption          |             |             |                   |                       |
| Saturation, 23°C          | --          | 1.0         | %                 |                       |
| Equilibrium, 23°C, 50% RH | --          | 1.5         | %                 | ISO 62                |
| Hardness                  | Dry         | Conditioned | Unit              | Test Method           |
| Rockwell Hardness         |             |             |                   | ASTM D785, ISO 2039-2 |
| M-Scale                   | 94          | 74          |                   |                       |
| R-Scale                   | 120         | 94          |                   |                       |
| Mechanical                | Dry         | Conditioned | Unit              | Test Method           |
| Tensile Modulus (23°C)    | 8100        | 5200        | MPa               | ISO 527-2             |
| Tensile Stress            |             |             |                   |                       |
| Break, 23°C               | 131         | 100         | MPa               | ISO 527-2             |

|                                |        |             |                   |             |
|--------------------------------|--------|-------------|-------------------|-------------|
| --                             | 139    | 106         | MPa               | ASTM D638   |
| Tensile Elongation             |        |             |                   |             |
| Break                          | 6.0    | 9.0         | %                 | ASTM D638   |
| Break, 23°C                    | 4.0    | 7.0         | %                 | ISO 527-2   |
| Flexural Modulus               |        |             |                   |             |
| --                             | 6600   | 4200        | MPa               | ASTM D790   |
| 23°C                           | 6700   | 4200        | MPa               | ISO 178     |
| Flexural Strength              |        |             |                   |             |
| --                             | 213    | 151         | MPa               | ASTM D790   |
| 23°C                           | 203    | 143         | MPa               | ISO 178     |
| Impact                         | Dry    | Conditioned | Unit              | Test Method |
| Charpy Notched Impact Strength | 4.6    | 5.5         | kJ/m <sup>2</sup> | ISO 179     |
| Notched Izod Impact            | 51     | 59          | J/m               | ASTM D256   |
| Thermal                        | Dry    | Conditioned | Unit              | Test Method |
| Heat Deflection Temperature    |        |             |                   |             |
| 0.45 MPa, Unannealed           | 250    | --          | °C                | ISO 75-2/B  |
| 1.8 MPa, Unannealed            | 240    | --          | °C                | ISO 75-2/A  |
| CLTE - Flow                    | 4.0E-5 | --          | cm/cm/°C          | ASTM D696   |
| Flammability                   | Dry    | Conditioned |                   | Test Method |
| Flame Rating (0.750 mm)        | HB     | --          |                   | UL 94       |

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