

# Lustran® ABS Guardian™ 620

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

## Message:

Lustran Guardian ABS 620 is a high modulus, HFC 134a and HCFC 22 resistant Extrusion grade resin designed for refrigerator door and food liners. Lustran ABS 620 offers good melt strength and deep draw formability for superior material distribution in large complex parts.

| General Information                                   |                           |                   |             |
|-------------------------------------------------------|---------------------------|-------------------|-------------|
| UL YellowCard                                         | E44741-235645             |                   |             |
| Features                                              | Good stripping            |                   |             |
|                                                       | Good melt strength        |                   |             |
| Uses                                                  | Lining                    |                   |             |
|                                                       | Home appliance components |                   |             |
| Agency Ratings                                        | EC 1907/2006 (REACH)      |                   |             |
| Forms                                                 | Particle                  |                   |             |
| Processing Method                                     | Extrusion                 |                   |             |
| Physical                                              | Nominal Value             | Unit              | Test Method |
| Specific Gravity                                      | 1.10                      | g/cm <sup>3</sup> | ASTM D792   |
| Mechanical                                            | Nominal Value             | Unit              | Test Method |
| Tensile Modulus (23°C)                                | 2620                      | MPa               | ASTM D638   |
| Tensile Strength                                      |                           |                   | ASTM D638   |
| Yield, 23°C                                           | 38.6                      | MPa               | ASTM D638   |
| Fracture, 23°C                                        | 31.7                      | MPa               | ASTM D638   |
| Tensile Elongation (Break, 23°C)                      | 45                        | %                 | ASTM D638   |
| Flexural Modulus (23°C)                               | 2410                      | MPa               | ASTM D790   |
| Flexural Strength (Yield, 23°C)                       | 70.3                      | MPa               | ASTM D790   |
| Impact                                                | Nominal Value             | Unit              | Test Method |
| Notched Izod Impact                                   |                           |                   | ASTM D256A  |
| -18°C, 3.18 mm                                        | 91                        | J/m               | ASTM D256A  |
| 23°C, 3.18 mm                                         | 270                       | J/m               | ASTM D256A  |
| Instrumented Dart Impact <sup>1</sup>                 |                           |                   | ASTM D3763  |
| -18°C, 12.7 mm, Maximum Energy                        | 1.13                      | J                 | ASTM D3763  |
| -18°C, 12.7 mm, Total Energy                          | 1.24                      | J                 | ASTM D3763  |
| 23°C, 12.7 mm, Maximum Energy                         | 2.82                      | J                 | ASTM D3763  |
| 23°C, 12.7 mm, Total Energy                           | 3.95                      | J                 | ASTM D3763  |
| Thermal                                               | Nominal Value             | Unit              | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Annealed) | 97.8                      | °C                | ASTM D648   |
| Flammability                                          | Nominal Value             |                   | Test Method |

|                                                              |               |             |
|--------------------------------------------------------------|---------------|-------------|
| Flame Rating (1.05 mm)                                       | HB            | UL 94       |
| Optical                                                      | Nominal Value | Test Method |
| Gardner Gloss (60°)                                          | 98            | ASTM D523   |
| Additional Information                                       | Nominal Value | Unit        |
| Critical Strain Energy <sup>2</sup> (23°C)                   | 0.62          | %           |
| Extrusion                                                    | Nominal Value | Unit        |
| Drying Temperature                                           | 82.2 - 93.3   | °C          |
| Drying Time                                                  | 3.0 - 4.0     | hr          |
| Melt Temperature                                             | 238 - 260     | °C          |
| Die Temperature                                              | 210 - 252     | °C          |
| Take-Off Roll                                                | 73.9 - 93.3   | °C          |
| Extrusion instructions                                       |               |             |
| Compression Ratio: 2.5:1.0 to 2.7:1.0 Pump Ratio: 1.5 to 2.0 |               |             |
| NOTE                                                         |               |             |
| 1.                                                           | 1.5 in ring   |             |
| 2.                                                           | 50/50 CO/OA   |             |

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#### Recommended distributors for this material

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