

# Sindustris ABS LAF423A

Acrylonitrile Butadiene Styrene

Sincerity Australia Pty Ltd.

Message:

Sindustris ABS LAF423A is an Acrylonitrile Butadiene Styrene (ABS) material. It is available in Asia Pacific for injection molding.

Important attributes of Sindustris ABS LAF423A are:

Flame Rated

Flame Retardant

Typical applications include:

Housings

Electrical/Electronic Applications

| General Information                            |                                    |                   |             |
|------------------------------------------------|------------------------------------|-------------------|-------------|
| Additive                                       | Flame Retardant                    |                   |             |
| Features                                       | Flame Retardant                    |                   |             |
| Uses                                           | Electrical Housing                 |                   |             |
|                                                | Electrical/Electronic Applications |                   |             |
|                                                | Housings                           |                   |             |
|                                                | Television Housings                |                   |             |
| UL File Number                                 | E306922                            |                   |             |
| Processing Method                              | Injection Molding                  |                   |             |
| Physical                                       | Nominal Value                      | Unit              | Test Method |
| Specific Gravity                               | 1.19                               | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)      | 55                                 | g/10 min          | ASTM D1238  |
| Molding Shrinkage - Flow (3.20 mm)             | 0.40 to 0.70                       | %                 | ASTM D955   |
| Hardness                                       | Nominal Value                      | Unit              | Test Method |
| Rockwell Hardness (R-Scale)                    | 104                                |                   | ASTM D785   |
| Mechanical                                     | Nominal Value                      | Unit              | Test Method |
| Tensile Modulus <sup>1</sup> (3.20 mm)         | 2260                               | MPa               | ASTM D638   |
| Tensile Strength <sup>2</sup> (Yield, 3.20 mm) | 43.1                               | MPa               | ASTM D638   |
| Tensile Elongation <sup>3</sup>                |                                    |                   | ASTM D638   |
| Yield, 3.20 mm                                 | 5.0                                | %                 |             |
| Break, 3.20 mm                                 | 20                                 | %                 |             |
| Flexural Modulus <sup>4</sup> (6.40 mm)        | 2650                               | MPa               | ASTM D790   |
| Flexural Strength <sup>5</sup> (6.40 mm)       | 70.6                               | MPa               | ASTM D790   |
| Impact                                         | Nominal Value                      | Unit              | Test Method |
| Notched Izod Impact                            |                                    |                   | ASTM D256   |
| -30°C, 3.20 mm                                 | 78                                 | J/m               |             |
| -30°C, 6.40 mm                                 | 78                                 | J/m               |             |
| 23°C, 3.20 mm                                  | 240                                | J/m               |             |

| 23°C, 6.40 mm                     | 230            | J/m  |                         |
|-----------------------------------|----------------|------|-------------------------|
| Thermal                           | Nominal Value  | Unit | Test Method             |
| Deflection Temperature Under Load |                |      | ASTM D648               |
| 0.45 MPa, Unannealed, 6.40 mm     | 84.0           | °C   |                         |
| 1.8 MPa, Unannealed, 6.40 mm      | 76.0           | °C   |                         |
| Vicat Softening Temperature       | 83.0           | °C   | ASTM D1525 <sup>6</sup> |
| RTI Elec                          | 85.0           | °C   | UL 746                  |
| RTI Imp                           | 75.0           | °C   | UL 746                  |
| RTI Str                           | 75.0           | °C   | UL 746                  |
| Flammability                      | Nominal Value  |      | Test Method             |
| Flame Rating                      |                |      | UL 94                   |
| 1.50 mm                           | V-0            |      |                         |
|                                   | V-0            |      |                         |
| 2.00 mm                           | 5VB            |      |                         |
|                                   | V-0            |      |                         |
| 2.50 mm                           | 5VB            |      |                         |
|                                   | V-0            |      |                         |
| 3.00 mm                           | 5VB            |      |                         |
| Injection                         | Nominal Value  | Unit |                         |
| Drying Temperature                | 70.0 to 80.0   | °C   |                         |
| Drying Time                       | 2.0 to 4.0     | hr   |                         |
| Suggested Max Moisture            | 0.010          | %    |                         |
| Rear Temperature                  | 170 to 190     | °C   |                         |
| Middle Temperature                | 180 to 200     | °C   |                         |
| Front Temperature                 | 190 to 210     | °C   |                         |
| Nozzle Temperature                | 200 to 230     | °C   |                         |
| Processing (Melt) Temp            | 200 to 230     | °C   |                         |
| Mold Temperature                  | 40.0 to 60.0   | °C   |                         |
| Back Pressure                     | 0.490 to 0.981 | MPa  |                         |
| Screw Speed                       | 30 to 60       | rpm  |                         |
| NOTE                              |                |      |                         |
| 1.                                | 1.0 mm/min     |      |                         |
| 2.                                | 50 mm/min      |      |                         |
| 3.                                | 50 mm/min      |      |                         |
| 4.                                | 15 mm/min      |      |                         |

|    |                                   |
|----|-----------------------------------|
| 5. | 15 mm/min                         |
| 6. | Rate A (50°C/h), Loading 2 (50 N) |

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