

LNP Faradex\* AS-1002

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics Asia Pacific

| General                |                           |                                   |                                   |
|------------------------|---------------------------|-----------------------------------|-----------------------------------|
| Filler / Reinforcement | • Stainless Steel Fiber   |                                   |                                   |
| Features               | • Electrically Conductive | • Electromagnetic Shielding (EMI) | • Radio Frequency Shielding (RFI) |
| Forms                  | • Pellets                 |                                   |                                   |
| Processing Method      | • Injection Molding       |                                   |                                   |

| Physical                 | Nominal Value | Unit  | Test Method |
|--------------------------|---------------|-------|-------------|
| Specific Gravity         |               |       |             |
| --                       | 1.12          | g/cm³ | ASTM D792A  |
| --                       | 1.11          | g/cm³ | ISO 1183    |
| Molding Shrinkage        |               |       |             |
| Flow: 24 hr              | 18            | %     | ASTM D955   |
| Across Flow: 24 hr       | 27            | %     | ASTM D955   |
| Across Flow: 24 hr       | 0.27          | %     | ISO 294-4   |
| Flow: 24 hr              | 0.18          | %     | ISO 294-4   |
| Water Absorption (24 hr) | 0.20          | %     | ASTM D570   |

| Mechanical         | Nominal Value | Unit | Test Method |
|--------------------|---------------|------|-------------|
| Tensile Modulus    |               |      |             |
| --                 | 3000          | MPa  | ASTM D638   |
| --                 | 2500          | MPa  | ISO 527-2   |
| Tensile Strength   |               |      |             |
| Yield              | 42.7          | MPa  | ASTM D638   |
| Yield              | 39.0          | MPa  | ISO 527-2   |
| Break              | 39.3          | MPa  | ASTM D638   |
| Break              | 37.0          | MPa  | ISO 527-2   |
| Tensile Elongation |               |      |             |
| Yield              | 2.2           | %    | ASTM D638   |
|                    |               |      | ISO 527-2   |
| Break              | 8.6           | %    | ASTM D638   |
| Break              | 3.3           | %    | ISO 527-2   |
| Flexural Modulus   |               |      |             |
| --                 | 2820          | MPa  | ASTM D790   |
| --                 | 2500          | MPa  | ISO 178     |
| Flexural Strength  |               |      |             |
| --                 | 75.8          | MPa  | ASTM D790   |
| --                 | 66.0          | MPa  | ISO 178     |

| Impact                   | Nominal Value | Unit  | Test Method |
|--------------------------|---------------|-------|-------------|
| Notched Izod Impact      |               |       |             |
| 3.18 mm                  | 58.7          | J/m   | ASTM D256   |
| --                       | 7.50          | kJ/m² | ISO 180     |
| Unnotched Izod Impact    |               |       |             |
| 3.18 mm                  | 286           | J/m   | ASTM D256   |
| --                       | 20.0          | kJ/m² | ISO 180     |
| Instrumented Dart Impact | 11.9          | J     | ASTM D3763  |

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| Thermal                                          | Nominal Value  | Unit     | Test Method |
|--------------------------------------------------|----------------|----------|-------------|
| Deflection Temperature Under Load                |                |          |             |
| 0.45 MPa, Unannealed                             | 97.2           | °C       | ASTM D648   |
| 0.45 MPa, Unannealed                             | 91.0           | °C       | ISO 75-2/B  |
| 1.8 MPa, Unannealed                              | 87.8           | °C       | ASTM D648   |
| 1.8 MPa, Unannealed                              | 78.0           | °C       | ISO 75-2/A  |
| CLTE                                             |                |          |             |
| Flow                                             | 0.000079       | cm/cm/°C | ASTM E831   |
| Flow                                             | 0.000078       | cm/cm/°C | ISO 11359-2 |
| Transverse                                       | 0.000076       | cm/cm/°C | ASTM E831   |
| Transverse                                       | 0.000096       | cm/cm/°C | ISO 11359-2 |
| Electrical                                       | Nominal Value  | Unit     | Test Method |
| Surface Resistivity                              | 1.0 to 1.0E+5  | ohms     | ASTM D4496  |
| Volume Resistivity                               | 1.0E+6         | ohm·cm   | ASTM D257   |
| Additional Information                           |                |          |             |
| EMI Shielding Effect, ASTM D4935-99: 40 to 55 DB |                |          |             |
| Volume Resistivity, ASTM D257: 1e2 to 1e6 ohm-cm |                |          |             |
| Injection                                        | Nominal Value  | Unit     |             |
| Drying Temperature                               | 82.2           | °C       |             |
| Drying Time                                      | 4.0            | hr       |             |
| Suggested Max Moisture                           | 0.020          | %        |             |
| Processing (Melt) Temp                           | 238 to 254     | °C       |             |
| Mold Temperature                                 | 71.1 to 93.3   | °C       |             |
| Back Pressure                                    | 0.172 to 0.345 | MPa      |             |

Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.