

**Product Texts**

LNP ELCRES FST2432 resin is a medium flow, UV stabilized, glass fiber reinforced polycarbonate Copolymer Resin for injection molding in opaque colors. This non-chlorinated, non-brominated flame retardant resin is EN 45545 R6-HL2 compliant and an ideal candidate for train seating applications.

| Processing/Physical Characteristics | Value | Unit                   | Test Standard |
|-------------------------------------|-------|------------------------|---------------|
| <b>ISO Data</b>                     |       |                        |               |
| Melt volume-flow rate, MVR          | 12    | cm <sup>3</sup> /10min | ISO 1133      |
| Temperature                         | 300   | °C                     | -             |
| Load                                | 1.2   | kg                     | -             |

| Mechanical properties                 | Value | Unit              | Test Standard |
|---------------------------------------|-------|-------------------|---------------|
| <b>ISO Data</b>                       |       |                   |               |
| Tensile Modulus                       | 3850  | MPa               | ISO 527       |
| Yield stress                          | 50    | MPa               | ISO 527       |
| Yield strain                          | 3.6   | %                 | ISO 527       |
| Stress at break                       | 42    | MPa               | ISO 527       |
| Strain at break                       | 7     | %                 | ISO 527       |
| Flexural modulus, 23°C                | 3800  | MPa               | ISO 178       |
| Flexural strength                     | 83    | MPa               | ISO 178       |
| Charpy impact strength, +23°C         | 96    | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Charpy notched impact strength, +23°C | 15    | kJ/m <sup>2</sup> | ISO 179/1eA   |
| Izod impact strength, +23°C           | 91    | kJ/m <sup>2</sup> | ISO 180/1U    |
| Izod notched impact strength, +23°C   | 16    | kJ/m <sup>2</sup> | ISO 180/1A    |
| Izod notched impact strength          | 9     | kJ/m <sup>2</sup> | ISO 180/1A    |
| Temperature                           | -30   | °C                | -             |
| <b>ASTM Data</b>                      |       |                   |               |
| Tensile Modulus                       | 3900  | MPa               | ASTM D 638    |
| Tensile Strength at Yield             | 50    | MPa               | ASTM D 638    |
| Tensile Strength at Break             | 41    | MPa               | ASTM D 638    |
| Elongation at Yield                   | 3.8   | %                 | ASTM D 638    |
| Elongation at Break                   | 6.8   | %                 | ASTM D 638    |
| Izod Impact notched, 1/8 in           | 143   | J/m               | ASTM D 256    |
| Izod Impact unnotched, 1/8 in         | 1200  | J/m               | ASTM D 256    |

| Thermal properties                          | Value | Unit  | Test Standard  |
|---|-------|-------|----------------|
| <b>ISO Data</b>                             |       |       |                |
| Temp. of deflection under load, 1.80 MPa    | 118   | °C    | ISO 75-1/-2    |
| Temp. of deflection under load, 0.45 MPa    | 126   | °C    | ISO 75-1/-2    |
| Vicat softening temperature, B              | 124   | °C    | ISO 306        |
| Coeff. of linear therm. expansion, parallel | 36    | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal   | 74    | E-6/K | ISO 11359-1/-2 |
| <b>ASTM Data</b>                            |       |       |                |
| DTUL @ 66 psi                               | 125   | °C    | ASTM D 648     |
| DTUL @ 264 psi                              | 116   | °C    | ASTM D 648     |

| Other properties    | Value | Unit              | Test Standard  |
|---------------------|-------|-------------------|----------------|
| Humidity absorption | 0.12  | %                 | Sim. to ISO 62 |
| Density             | 1290  | kg/m <sup>3</sup> | ISO 1183       |

| Processing Recommendation Injection Molding | Value     | Unit | Test Standard |
|---|-----------|------|---------------|
| Pre-drying - Temperature                    | 90 - 105  | °C   | -             |
| Pre-drying - Time                           | 3 - 6     | h    | -             |
| Processing humidity                         | ≤0.05     | %    | -             |
| Melt temperature                            | 290 - 310 | °C   | -             |
| Mold temperature                            | 80 - 95   | °C   | -             |
| Zone 1                                      | 270 - 290 | °C   | -             |
| Zone 2                                      | 280 - 300 | °C   | -             |
| Zone 3                                      | 290 - 310 | °C   | -             |

|               |                  |     |   |
|---------------|------------------|-----|---|
| Screw speed   | <b>30 - 60</b>   | rpm | - |
| Back pressure | <b>0.2 - 0.3</b> | MPa | - |

**Characteristics****Processing**

Injection Molding

**Features**

Low Smoke, Copolymer

**Special Characteristics**

Flame retardant, Halogen-free, U.V. stabilized or stable to weather, Opaque

**Regional Availability**

North America, Europe, Asia Pacific, South and Central America