

# Zytel® LC6601 NC010

## LONG CHAIN POLYAMIDE RESIN

Zytel® LCPA long chain polyamide resins provide an innovative and growing portfolio of flexible polymers with excellent thermal, chemical, and hydrolysis resistance. The diverse selection of Zytel® LCPA grades is targeted for a range of performance characteristics, balancing temperature resistance, flexibility and low permeation.

Zytel® LC6601 NC010 is a toughened, polyamide 612 resin plasticized for improved flexibility in extrusion applications.

### Product information

|                      |                                   |           |
|----------------------|-----------------------------------|-----------|
| Resin Identification | PA612-IP                          | ISO 1043  |
| Part Marking Code    | >PA612-IP<                        | ISO 11469 |
| ISO designation      | ISO 16396-PA612-I,,M1G1HN,S18-007 |           |

### Typical mechanical properties

|                                       | dry/cond. |                   |              |
|---------------------------------------|-----------|-------------------|--------------|
| Tensile modulus                       | 880/-     | MPa               | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min     | 32/-      | MPa               | ISO 527-1/-2 |
| Tensile strain at yield, 50mm/min     | 25/-      | %                 | ISO 527-1/-2 |
| Nominal strain at break               | >50/-     | %                 | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min     | 250/-     | %                 | ISO 527-1/-2 |
| Flexural modulus                      | 800/-     | MPa               | ISO 178      |
| Charpy impact strength, 23°C          | N/-       | kJ/m <sup>2</sup> | ISO 179/1eU  |
| Charpy notched impact strength, 23°C  | 70/-      | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Charpy notched impact strength, -30°C | 16/-      | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Charpy notched impact strength, -40°C | 16/-      | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Poisson's ratio                       | 0.45/-    |                   |              |

### Thermal properties

|  | dry/cond. |    |                |
|--|-----------|----|----------------|
| Melting temperature, 10°C/min                  | 215/*     | °C | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa  | 45/*      | °C | ISO 75-1/-2    |
| Temperature of deflection under load, 0.45 MPa | 120/*     | °C | ISO 75-1/-2    |

### Flammability

|                              |            |                      |
|------------------------------|------------|----------------------|
| FMVSS Class                  | B          | ISO 3795 (FMVSS 302) |
| Burning rate, Thickness 1 mm | <80 mm/min | ISO 3795 (FMVSS 302) |

### Physical/Other properties

|         | dry/cond. |                   |          |
|---------|-----------|-------------------|----------|
| Density | 1020/-    | kg/m <sup>3</sup> | ISO 1183 |

### Extrusion

|                                 |              |
|---------------------------------|--------------|
| Drying Temperature              | 75 - 80 °C   |
| Drying Time, Dehumidified Dryer | 3 - 4 h      |
| Processing Moisture Content     | ≤0.06 %      |
| Melt Temperature Optimum        | 240 °C       |
| Melt Temperature Range          | 230 - 245 °C |

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## Characteristics

|               |   |
|---------------|---|
| Processing    | Injection Moulding, Film Extrusion, Extrusion, Sheet Extrusion, Other Extrusion |
| Delivery form | Pellets   |

## Automotive

|                |                 |                        |
|----------------|-----------------|------------------------|
| OEM            | STANDARD        | ADDITIONAL INFORMATION |
| General Motors | GMW17604P-PA612 | Natural                |