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# 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/m² | ISO 179/1eU |
| Charpy notched impact strength, 23 °C | 70 / - | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength, -30 °C | 16 / - | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength, -40 °C | 16 / - | kJ/m² | 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/m³ | 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 |



Revised: 2025-04-23 Source: Celanese Materials Database