# CELCON® TX-11H

CELCON®

A friction and wear-resistance (medium-high viscosity) grade for general injection molding. Suitable for uses requiring reduced wear noise and a good friction and wear resistance without sacrificing mechanical properties.

## Product information

| | | | |
|---|---|---|---|
| Resin Identification | POM | | ISO 1043 |
| Part Marking Code | >POM< | | ISO 11469 |

## Rheological properties

| | | | |
|---|---|---|---|
| Melt mass-flow rate | 5 | g/10min | ISO 1133 |
| Melt mass-flow rate, Temperature | 374 | °F | |
| Melt mass-flow rate, Load | 4.76 | lb | |
| Molding shrinkage, parallel | 2.0 | % | ISO 294-4, 2577 |

## Typical mechanical properties

| | | | |
|---|---|---|---|
| Tensile modulus | 377000 | psi | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 9300 | psi | ISO 527-1/-2 |
| Tensile strain at yield, 50mm/min | 10 | % | ISO 527-1/-2 |
| Nominal strain at break | 40 | % | ISO 527-1/-2 |
| Flexural modulus | 370000 | psi | ISO 178 |
| Flexural strength | 12500 | psi | ISO 178 |
| Charpy notched impact strength, 23°C | 4.52 | ftlb/in$^2$ | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 3.33 | ftlb/in$^2$ | ISO 179/1eA |
| Poisson's ratio | 0.39 | | |

## Thermal properties

| | | | |
|---|---|---|---|
| Melting temperature, 10°C/min | 338 | °F | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa | 207 | °F | ISO 75-1/-2 |

## Electrical properties

| | | | |
|---|---|---|---|
| Volume resistivity | 1E12 | Ohm.m | IEC 62631-3-1 |
| Surface resistivity | 1E16 | Ohm | IEC 62631-3-2 |

## Physical/Other properties

| | | | |
|---|---|---|---|
| Humidity absorption, 2mm | 0.2 | % | Sim. to ISO 62 |
| Density | 0.0505 | lb/in$^3$ | ISO 1183 |

## Injection

| | | |
|---|---|---|
| Drying Recommended | no | |
| Drying Temperature | 212 | °F |
| Drying Time, Dehumidified Dryer | 3 - 4 | h |
| Processing Moisture Content | ≤0.2 | % |
| Melt Temperature Optimum | 383 | °F |
| Min. melt temperature | 356 | °F |
| Max. melt temperature | 410 | °F |
| Max. screw tangential speed | ≤0.3 | m/s |
| Mold Temperature Optimum | 158 | °F |



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| | | |
|---|---|---|
| Min. mold temperature | 140 | °F |
| Max. mold temperature | 176 | °F |
| Hold pressure range | 8700 - 17400 | psi |
| Hold Pressure Time<br>(h is the max. wall thickness of the part in mm) | $2h^2$-3 | s |

## Automotive

| OEM | STANDARD | ADDITIONAL INFORMATION |
|---|---|---|
| General Motors | GMW22P-POM-C2 | Natural |
| General Motors | GMW22P-POM-C2 | Black |
| Hyundai | MS237-09 Type E-1 | Pyeongtaek,Korea |
| Renault | Ulsan, Korea, No Spec, Special Part Approval, See Your CE Account Manager. | |

## Characteristics

| | |
|---|---|
| Processing | Injection Molding |
| Special characteristics | Low wear / Low friction |



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