

CELANYL® A3 H NC 1102/1

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Product information

| | | |
|----------------------|--------|-----------|
| Resin Identification | PA66 | ISO 1043 |
| Part Marking Code | >PA66< | ISO 11469 |

Rheological properties

| | | |
|------------------------------------|-----------|-----------------|
| Moulding shrinkage range, parallel | 1 - 1.5 % | ISO 294-4, 2577 |
| Moulding shrinkage range, normal | 1 - 1.5 % | ISO 294-4, 2577 |

Typical mechanical properties

| | dry/cond. | | |
|---------------------------------------|----------------------------|-------------------|--------------|
| Tensile modulus | 3350 / 1580 | MPa | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 85 / 58 | MPa | ISO 527-1/-2 |
| Tensile strain at yield, 50mm/min | 4.3 / 20 | % | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min | 10 / - | % | ISO 527-1/-2 |
| Flexural modulus | 3300 / 1240 | MPa | ISO 178 |
| Flexural strength | 100 / 35 | MPa | ISO 178 |
| Charpy notched impact strength, 23 °C | 4 / 12.5 | kJ/m ² | ISO 179/1eA |
| Izod notched impact strength, 23 °C | 4 / - | kJ/m ² | ISO 180/1A |
| Poisson's ratio | 0.37 / 0.42 ^[C] | | |

[C]: Calculated

Thermal properties

| | dry/cond. | | |
|--|-----------|----|-------------|
| Temperature of deflection under load, 1.8 MPa | 66 / * | °C | ISO 75-1/-2 |
| Temperature of deflection under load, 0.45 MPa | 204 / * | °C | ISO 75-1/-2 |

Flammability

| | dry/cond. | | |
|-------------------------------|-----------|-------|----------------------|
| Burning Behav. at thickness h | V-2 / * | class | IEC 60695-11-10 |
| Thickness tested | 0.8 / * | mm | IEC 60695-11-10 |
| FMVSS Class | SE | | ISO 3795 (FMVSS 302) |

Physical/Other properties

| | dry/cond. | | |
|---------|-----------|-------------------|----------|
| Density | 1140 / - | kg/m ³ | ISO 1183 |

Injection

| | |
|---------------------------------|----------|
| Drying Recommended | yes |
| Drying Temperature | 80 °C |
| Drying Time, Dehumidified Dryer | 2 - 4 h |
| Processing Moisture Content | ≤0.15 % |
| Melt Temperature Optimum | 290 °C |
| Min. melt temperature | 280 °C |
| Max. melt temperature | 300 °C |
| Screw tangential speed | ≤0.4 m/s |
| Mold Temperature Optimum | 70 °C |
| Min. mould temperature | 50 °C |
| Max. mould temperature | 90 °C |

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Characteristics

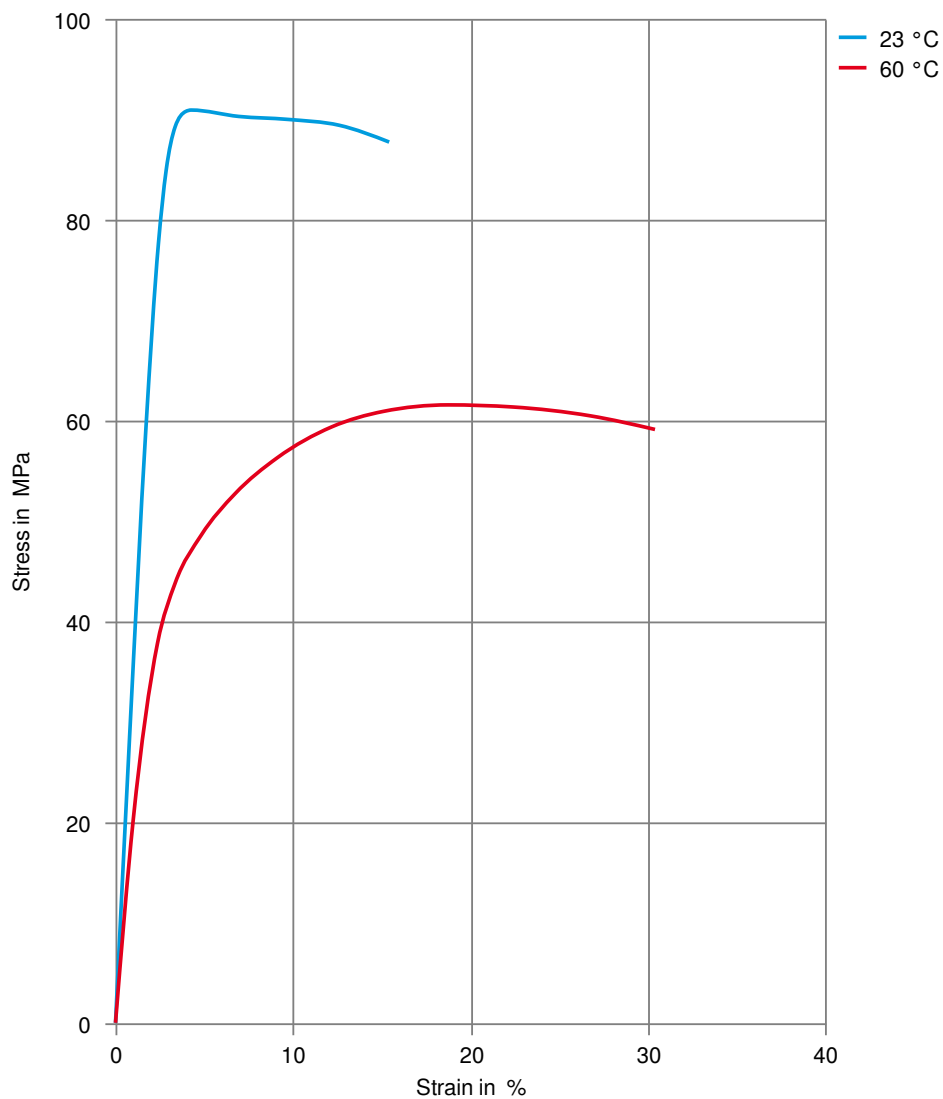
Processing

Injection Moulding

Special characteristics

Heat stabilised or stable to heat, Low wear / Low friction

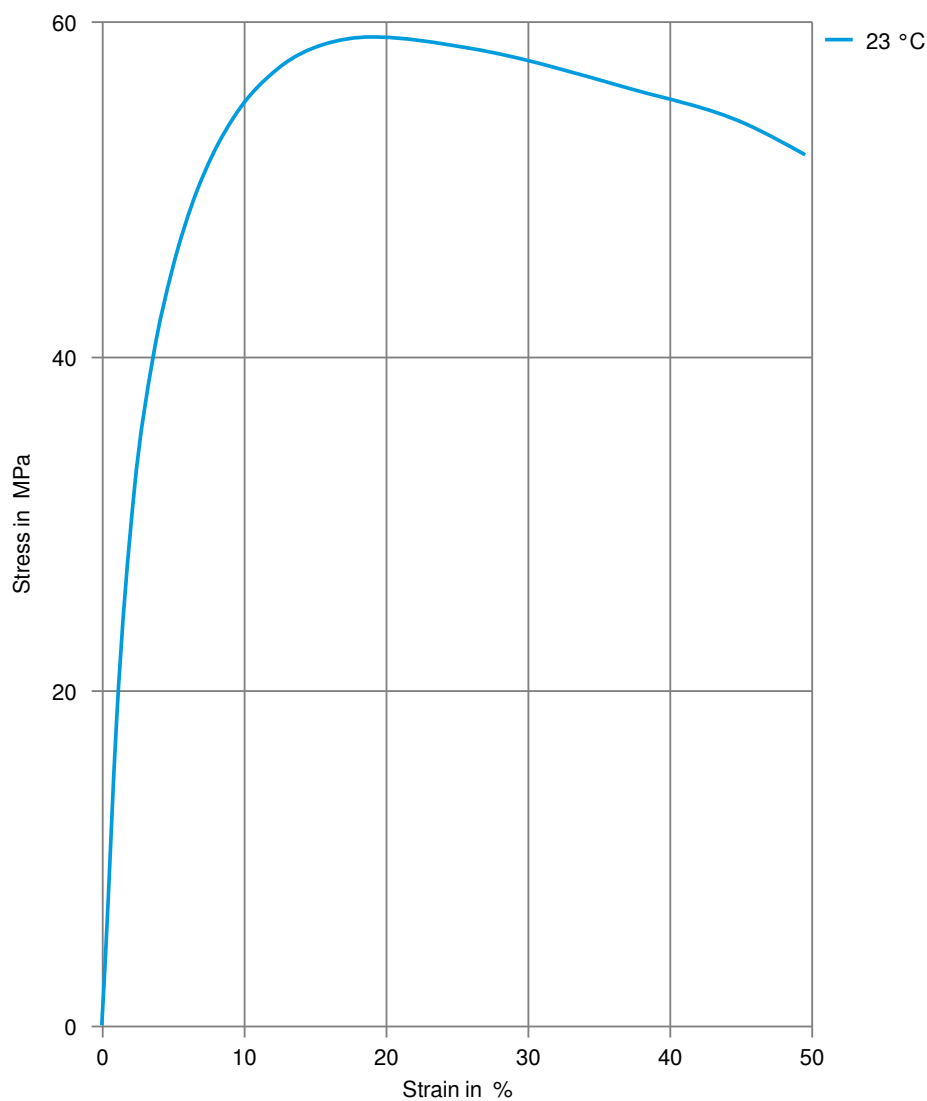
Stress-strain (dry)



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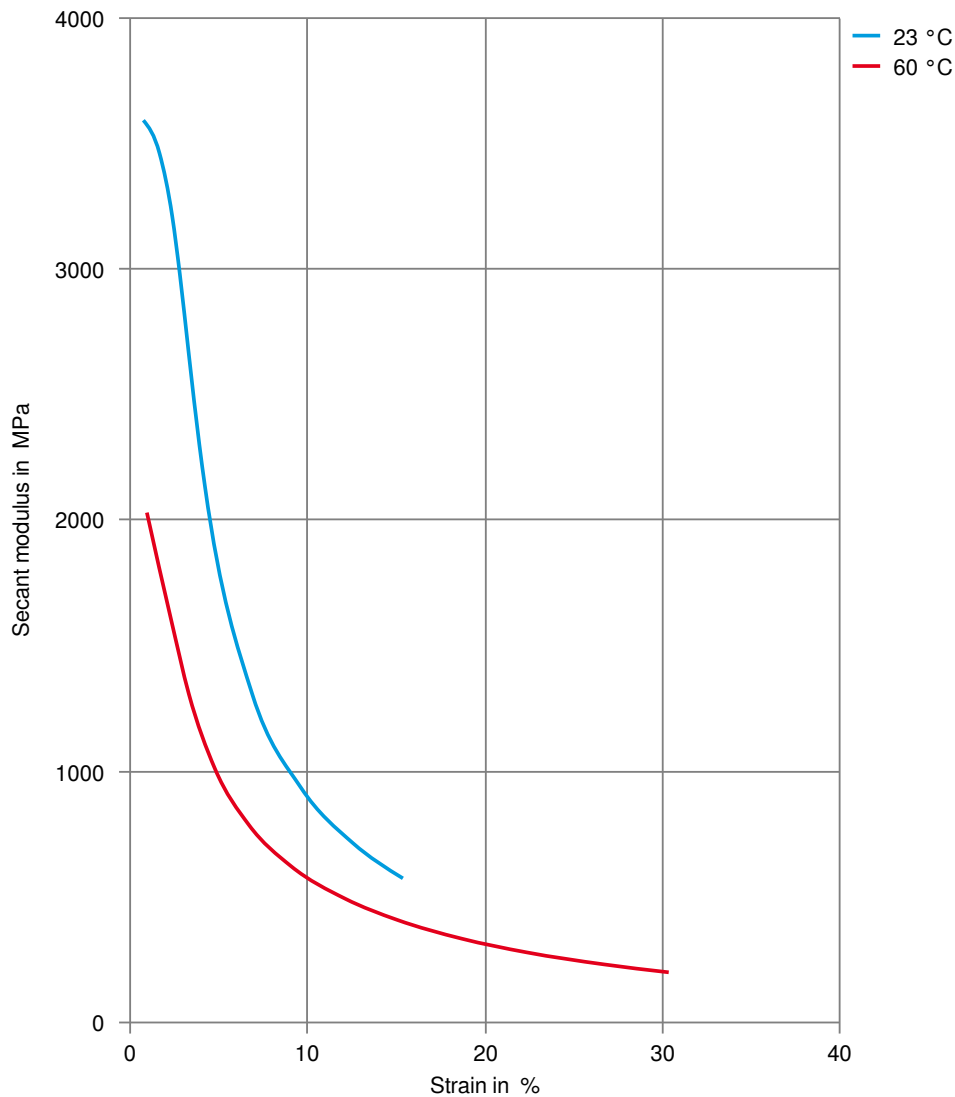
Stress-strain (cond.)



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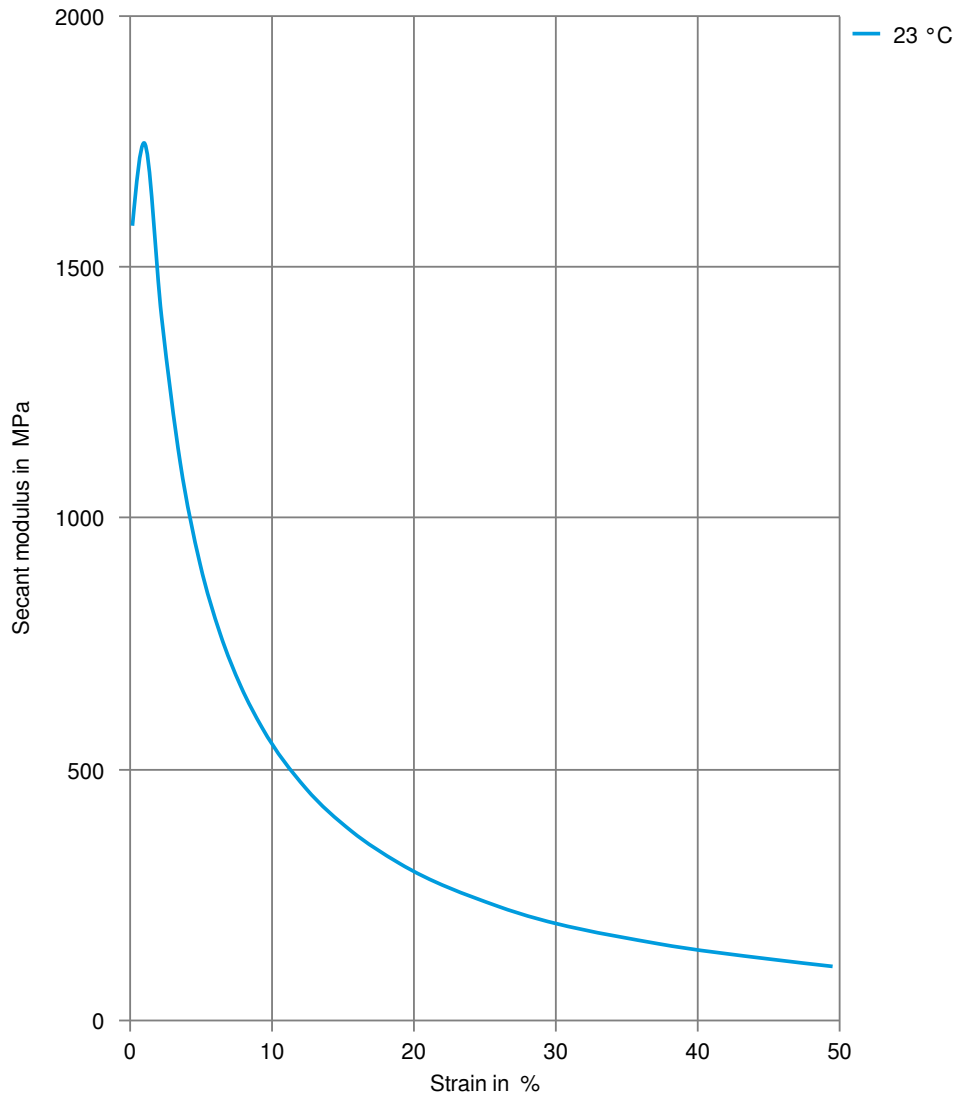
Secant modulus-strain (dry)



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Secant modulus-strain (cond.)



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