

Cyclo-olefin copolymer impact-modified (**COC tough**)

General

COC Tough is a high-performance technical filament based on cyclo-olefin copolymer, specially developed for applications where mechanical strength, chemical resistance and optical neutrality are required. Through targeted impact taming modification, the material offers an extraordinary combination of robustness and thermal stability - ideal for functional components with demanding requirements.

Due to the high break resistance in case of shocks, the material is ideal for mechanically strained parts. COC tough is resistant to oils, alcohols, acids and many other chemicals. The high temperature resistance makes the material ideally suited for industrial applications.

Advantageous

- high breaking strength
- chemical resistant
- moisture resistant

Disadvantageous

- opaque

Processing data

Printing temperature

240-280°C

Heating bed temperature

80-100°C

Chamber temperature

60-80°C

Drying temperature

Not necessary

Drying time

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Technical data

Shrinkage	0.5-0.7 %
MFR (ISO 1183)	0.7 g/10min
Yield stress (ISO 527-2/1A)	40 MPa
Yield strain (ISO 527-2/1A)	4 %
Elongation at break (ISO 527-2/1A)	20 %
Tensile modulus (ISO 527-2/1A)	1900 MPa
Heat deflection temperature 0.45 MPa (ISO 75-1, -2)	160 °C
Vicat Softening temperature B50 (ISO 306)	156 °C
Thermal conductivity 23°C	- W/(K*m)
Flammability (UL 94)	HB
Density (ISO 1183)	1.02 g/cm ³