purefil
of Switzerland

Polymethyl methacrylate (**PMMA**)

General

PMMA is an amorphous, thermoplastic material that is characterized by transparency, brilliance and scratch resistance. PMMA is often used as a lightweight alternative to glass and is therefore also known as acrylic glass.
Compared to PC, PMMA has better UV resistance, higher transparency and is significantly more scratch-resistant. PMMA is very suitable for outdoor applications due to its excellent resistance to weather influences, UV radiation and aging.
PMMA has good electrical insulating properties and is therefore often used for housings in the electronics sector.
PMMA is susceptible to stress cracking, so printed parts should not be cleaned with alcohol or solvents.

advantageous

- hohe Steifigkeit und Dimensionsstabilität
- Härte und Kratzfestigkeit
- gut geeignet für Dual-Extrusion
- UV-beständig
- gute Witterungsbeständigkeit
- Auch bei Minustemperaturen bis -40°C einsetzbar

disadvantageous

- relativ spröde
- spannungsrissempfindlich in Kontakt mit Alkohol und Lösungsmitteln

Processing data

Printing temperature
230-280 °C
Heated bed temperature
90-110 °C
Drying temperature
80°C
Drying time
3-4h

Technical specifications

Shrinkage (ISO 294-4)	0.6-0.8	**%**
MFR (ASTM D1238)	1.6	g/10min
Yield stress (ASTM D638)	80	MPa
Elongation at yield (ASTM D638)	6.5	%
Reissdehnung (ASTM D638)	6.5	%
Zug-E-Modul (ASTM D412)	3300	MPa
Formbeständigkeitstemperatur 0.45 MPa (ASTM D648)	94	°C
Vicat Erweichungstemperatur A (ASTM 1525)	101	°C
Wärmeleitzahl 23°C	-	W/(K*m)
Brennbarkeit (UL 94)	HB	
Dichte (ASTM D792)	1.19	g/cm^3