

3Diakon™ PMMA

3Diakon™ PMMA or Poly(methyl methacrylate) is known as having excellent weathering and UV stability combined with excellent impact performance and stiffness. PMMA is characterized as a transparent polymer (more transparent after post processing) and it is reasonably easy to print.

Material features:

- Strong, lightweight and rigid material
- High impact resistant
- Good abrasion resistance
- Transparent and glossy after post processing (sanding)
- UV resistance
- BPA free

Colors:

3Diakon™ PMMA is available in clear.

CL1

Packaging:

DURABIO™ is available in the original packaging of Mitsubishi Chemical.



Filament Specs.

Size	Ø Tolerance	Roundness
1.75mm	± 0.05mm	≥ 95%
2.85mm	± 0.10mm	≥ 95%

Material Properties

Description	Test Method	Typical value
Specific Gravity	ISO 1183	1.14 g/cm ³
MFI 230°C/3.8 kg	ISO 1133	1.7 g/10 min
Tensile Strength at Yield	ISO 527	43 MPa
Impact Strength - Charpy method notched 23 °C	ISO 179	6.2 kJ/m ²
Flexural Modulus	ISO 178	1900 MPa
Flexural Strength	ISO 178	62 MPa
Vicat softening temperature	ISO 306B	91°C
Heat Deflection Temp. HDT B	ISO 75A	93°C
Transmittance	ASTM D1003	91.5%

Additional Information: We recommend to print large objects of 3Diakon™ in heated chambers to create a nice and smooth printed object.

Storage: Cool and dry (15-25°C), this enhances the shelf life significantly

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Print Properties	
Description	Typical value
Nozzle Size	0.25 cm
Bed Adhesion	Dimafix*
Nozzle temperature	255±10°C
Bed Temperature	≥100°C
Layer Height	0.2 mm
Print Speed	50 mm/s
Fan Speed	0%
Extrusion Multiplier/ Material Flow	95%
Retraction Distance	4 mm
Retraction Speed	25 mm/s
Difficulty to Print	Intermediate
Drying Required	6-12 hours 70-80°C suggested

*Dimafix is used with a glass buildplate.

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