

FGF PIPG GF FR UV

FGF PIPG GF FR UV is our take on a glass filled Flame retardant material, developed for large scale manufacturing. This material suits aesthetic applications where flame retardancy and rigidity are required, and with UV stabilization is better suited against yellowing conditions.

Material features:

- Flame retardant
- UV stabilized
- Stiff
- Based on Post Industrial Recycled PETG

Colours:

Colours on request. Ask your accountmanager.

Packaging:

FGF PIPG FR GF UV is available in 20kg bag

Processing recommendations

Drying	4hr,65°C. <400ppm
Zone 1 Temperature	230±20 °C
Zone 2 Temperature	230±20 °C
Zone 3 Temperature	230±20 °C
Mass temperature	230-250°C
Die temperature	230±20 °C

Material properties

Description	Testmethod	Typical value
Specific gravity	ISO 1183	1,4g/cc
MFR 200°C/5 kg	ISO 1133	1 g/10min
Tensile Strength at Yield	ISO 527	75 Mpa
Tensile Strength at Break	ISO 527	73 Mpa
Elongation-Strain at Yield	ISO 527	3 %
Elongation-Strain at Break	ISO 527	4 %
Tensile modulus	ISO 527	5500 Mpa
Impact strength - Charpy notched 23°C	ISO 179	8 kJ/m2
Vicat softening temperature B50	ISO 306	76 °C
Heat deflection temperature A120	ISO 75	73 °C
Mold shrinkage	Internal method (ISO 294-4 based)	0,28%
Flame Retardancy	Internal method (similar to UL94)	V0
Glass Transition Temperature	ISO 11357	80°C

Additional info:

The glassfiber is mildly abrasive, please consider the use of a hardened steel nozzle and, if used, a gear pump, when printing with FGF PIPG GF FR UV. Do not use a breaker plate with screen.

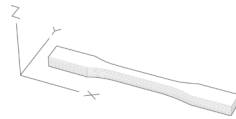
Storage: Cool and dry (15-25 °C) and away from UV light.

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Mechanical Specifications

Table 1: Tensile data of both injection moulded and 3D-printed specimens.

	3D-Printed X-Y	3D-Printed Z
Young's Modulus [MPa]	3500	1900
Stress at Yield [MPa]	45	24
Stress at Break [MPa]	20	24
Strain at Yield [%]	2,5	2,5
Strain at Break [%]	3	2,5
Impact Strength, unnotched [kJ/m ²]	54	11



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