Innofil3D Professional Series

Pro1

COMPARABLE DATA SHEET
INNOFIL3D FILAMENTS

OVERVIEW MECHANICAL PROPERTIES OF PRINTED TEST SPECIMENS

This Comparison Data Sheet contains standardized material data for 3D-printed test specimens according to ISO 178, ISO 179 and ISO 527. For detailed information, see the Technical Data Sheets.

TENSILE STRENGTH	(MPa)	(MPa)
50% INFILL	VERTICAL	HORIZONTAL
Innofil3D ABS	4,4	17,0
Innofil3D PLA	13,6	24,1
EPR InnoPET	11,1	27,7
Innofil3D PRO1	14,5	29,3

TENSILE STRENGTH	(MPa)	(MPa)
100% INFILL	VERTICAL	HORIZONTAL
Innofil3D ABS	6,5	29,3
Innofil3D PLA	28,8	38,1
EPR InnoPET	22,8	40,9
Innofil3D PRO1	21,8	48,0

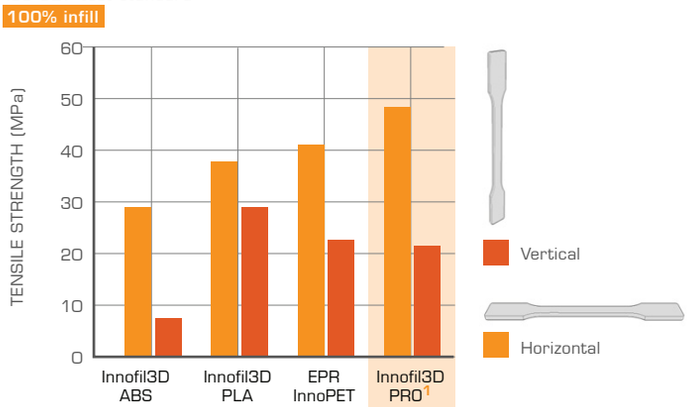
FLEXURAL STRENGTH	(MPa)	(MPa)
100% INFILL	PARALLEL	NORMAL
Innofil3D ABS	72,6	67,3
Innofil3D PLA	86,2	65,7
EPR InnoPET	93,0	76,7
Innofil3D PRO1	99,1	92,4

CHARPY IMPACT STR.	(kJ/m2)	(kJ/m2)
100% INFILL	PARALLEL	NORMAL
EPR InnoPET	12,4	5,2
Innofil3D PLA	13,1	14,2
Innofil3D PRO1	20,4	18,8
Innofil3D ABS	35,4	39,3

TENSILE STRENGTH RANKING OF PRINTED FILAMENTS

ISO 527 test standard

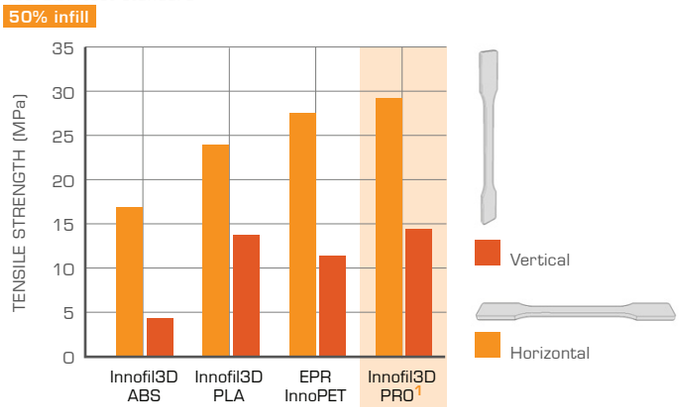
100% infill



TENSILE STRENGTH RANKING OF PRINTED FILAMENTS

ISO 527 test standard

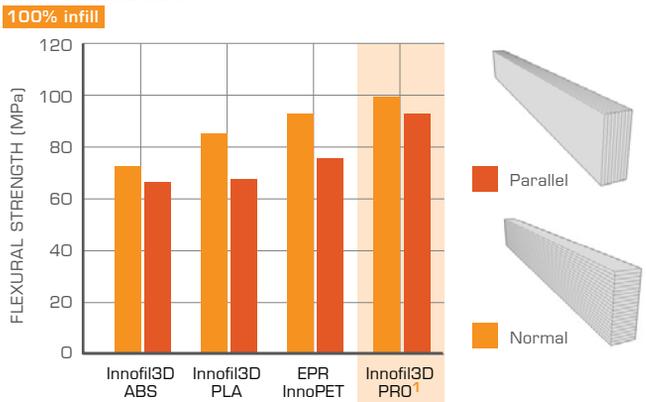
50% infill



FLEXURAL STRENGTH RANKING OF PRINTED FILAMENTS

ISO 178 test standard

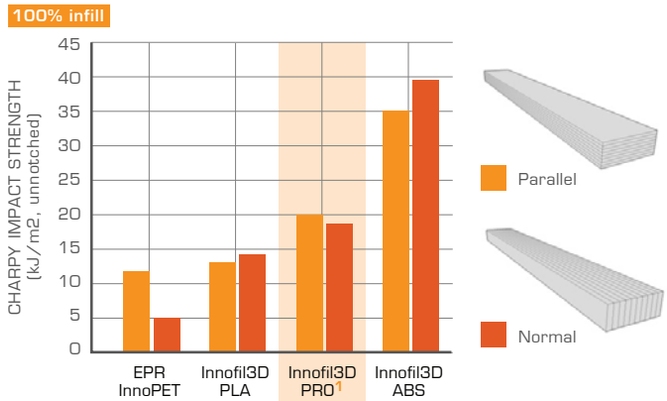
100% infill



CHARPY IMPACT STRENGTH RANKING OF PRINTED FILAMENTS

ISO 179 test standard

100% infill



All test specimens were printed using an Ultimaker 2+ under the following conditions:

		PLA	PET	PRO1	ABS
Printing Temp.	(°C)	210	210	210	240
Heated Bed Temp.	(°C)	60	75	60	90
Print Speed	(mm/s)	40	40	40	40

ISO 527; Tensile Tests. A minimum of 5 specimens with 50% infill and a minimum of 5 specimens tested with 100% infill, printed both horizontally and vertically.

ISO 178; Charpy Impact Tests. 10 specimens normal and 10 specimens parallel, all 100% infill.

ISO 179; Flexural Tests. 10 specimens normal, 10 specimens parallel, all 100% infill.

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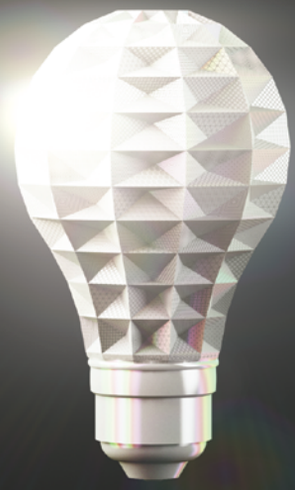

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