Fabrica Materials Data Sheet

Fabrica's proprietary materials reach new levels of precision, opening endless possibilities for additive manufacturing.

PERFORMANCE

P-900

Reinforced Composite with high-temperature-tolerance and high wear resistance.

P-910

Extreme thermal performance

Ideal for prototyping and manufacturing precision parts that require high heat resistance, such as injection molding.

DURABLE

D-810

ABS-like

Durable, rigid material, enabling high structural integrity.

D-820

PVC-like

High endurance over repeated use where flexibility is required.

TRANSPARENT

T-700

PMMA-like

Transparent rigid material that enables high structural integrity with high accuracy.

MEDICAL

M-810

Non cytotoxic material (ISO-10993) suitable for tiny and precise medical device components.

NANODIMENSION

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NANODIMENSION

	BASED ON STANDARD	PERFORMANCE		DURABLE		TRANSPARENT	MEDICAL
		P-900	P-910	D-810	D-820	T-700	M-810
Tensile strength (Mpa)	ASTM D-1708	60	70	50	21	38	50
Young's Modulus (MPa)		660	635	550	321	460	550
Elongation at break (%)		11	15	11	7.5	12	11
Flexural strength (MPa)	ASTM D-790	98	110	80	31.4	73	80
Flexural Modulus (MPa)		2000	2600	1600	512	1350	1600
Flexural max strain (%)		7.6	5.0	6	12	6.5	6
Shore hardness	Scale D ASTM D 2240	90	89	88	76	84	88
Tg (°C)	DMA ASTM D 7028	140	184	120	55	100	120
CTE (ppm/K) 150°C-220°C	TMA		133				
Df (100GHz) before/after 48h water immersion	ASTM D150 ASTM D 570 – 98	0.017	0.012/0.012	0.017/0.017		0.029/0.023	0.017/0.017
Dk (100GHz) before/after 48h water immersion		2.14	2.96/2.97	2.85/2.86		2.92/2.91	2.85/2.86
Density of Liquid Resin (gr/cm^3)	ASTM D1475	1.17	1.14	1.08	1.08	1.09	1.08
Density (g/cm3)	ASTM D792	1.27	1.24	1.15	1.19	1.15	1.15
Refractive index 448nm-1550nm						1.51-1.52	
ISO-10993							Non cytotoxic

This data represents typical tested values at a controlled environment. Material properties may vary with part geometry, print orientation, print settings, environmental conditions and additional variables. To learn more about specific testing conditions, please contact a Nano Dimension representative. Specific performance of customer parts should be tested in accordance with customer's specifications. The above detailed data should not be used to establish design, quality control, or specification limits, and is not intended to substitute customer's own testing to determine suitability for a particular application.

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