

ULTIMAKER ABS

<u>Chemical Name</u>	Acrylonitrile butadiene styrene
<u>Description</u>	Used by an array of industries worldwide, ABS is known for its exceptional mechanical properties. Our ABS is specifically formulated to minimize warping and ensure consistent interlayer adhesion.
<u>Key features</u>	Excellent mechanical properties and interlayer adhesion (especially when using the front door add-on), nice aesthetics, minimal warping and reliable bed adhesion.
<u>Applications</u>	Visual and functional prototyping and short run manufacturing.
<u>Non suitable for</u>	Food contact and in-vivo applications. Long term UV exposure can negatively affect properties of an ABS print. Applications where the printed part is exposed to temperatures higher than 85 °C.

FILAMENT SPECIFICATIONS

	VALUE	METHOD
<u>Diameter</u>	2.85±0.10 mm	-
<u>Max. roundness deviation</u>	0.1 mm	-
<u>Net filament weight</u>	750 g	-

COLOR INFORMATION

	PRODUCT NUMBER	COLOR	COLOR CODE
	UM9701	ABS Black	RAL 9017
	UM9702	ABS White	RAL 9003
	UM9703	ABS Red	RAL 3020
	UM9704	ABS Blue	RAL 5002
	UM9705	ABS Silver	RAL 9006
	UM9706	ABS Pearl Gold	RAL 1036
	UM9707	ABS Green	RAL 6018
	UM9708	ABS Orange	RAL 2008
	UM9709	ABS Yellow	RAL 1023
	UM9710	ABS Gray	RAL 7011

MECHANICAL PROPERTIES (*)	TYPICAL VALUE	TEST METHOD
<u>Tensile modulus</u>	2030 MPa	ISO 527 (1 mm/min)
<u>Tensile stress at yield</u>	43.6 MPa	ISO 527 (50 mm/min)
<u>Tensile stress at break</u>	-	-
<u>Elongation at yield</u>	4.8%	ISO 527 (50 mm/min)
<u>Elongation at break</u>	34%	ISO 527 (50 mm/min)
<u>Flexural strength</u>	-	-
<u>Flexural modulus</u>	-	-
<u>Izod impact strength, notched (at 23°C)</u>	-	-
<u>Izod impact strength, unnotched (at 23°C)</u>	-	-
<u>Charpy impact strength, notched (at 23°C)</u>	58 KJ/m ²	ISO 179
<u>Hardness</u>	97 (Shore A)	-

THERMAL PROPERTIES	TYPICAL VALUE	TEST METHOD
<u>Melt mass-flow rate (MFR)</u>	41 g/10 min	ISO 1133 (260 °C, 5 kg)
<u>Heat deflection (HDT) at 0.455 MPa</u>	-	-
<u>Heat deflection (HDT) at 1.82 MPa</u>	-	-
<u>Glass transition</u>	97 °C	ISO 306
<u>Coefficient of thermal expansion (flow)</u>	-	-
<u>Coefficient of thermal expansion (xflow)</u>	-	-
<u>Melting temperature</u>	225-245 °C	ISO 294
<u>Thermal shrinkage (hot air, 100 °C, 30min)</u>	-	-

OTHER PROPERTIES	TYPICAL VALUE	TEST METHOD
<u>Specific gravity</u>	1.10	ISO 1183
<u>Flame classification</u>	-	-

(*) On injection molded bars, see notes.

NOTES

Properties reported here are average of a typical batch.

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VERSION

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