



STEREOLITHOGRAPHY (SLA) TECHNICAL PACK



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STEREOLITHOGRAPHY



TECHNICAL SPECIFICATION

MACHINES	RS PRO 800	PILOT 450	3500	VIPER
Layer Thickness (mm)	0.07-0.25	0.05-0.1	0.1	0.05-0.1
XYZ (mm)	800 x 800 x 550	450 x 450 x 400	350 x 350 x 350	250 x 250 x 250
Materials	UK1618 Accura PIV	Accura Xtreme Accura HPC	Accura Xtreme Accura HPC	Accura Xtreme Accura ClearVue
Tolerances	$\pm 0.2\%$ (with a lower limit of $\pm 0.2\text{mm}$)			
Supported / Unsupported Walls	1mm - Standard 0.5mm - Hi-Res			
Connections	0.2mm assembly connections, 0.2mm snug fits			
Engraving	0.5mm			
Embossed Details	0.5mm			
Holes (Upfacing)	0.5mm - Standard 0.3mm Hi-Res			





MATERIAL	ACCURA XTREME	ACCURA CLEARVUE	UK1618	ACCURA HPC	ACCURA PIV
Description	Good for form, fit & function prototypes as well as durable assemblies.	Great for headlamps, bottles & transparent assemblies. Great moisture resistance. Capable of meeting UPS Class VI.	Suitable for master patterns, concept models, and functional prototypes.	Suitable for automotive & aerospace wind tunnel models as well as jigs & fixtures.	Great for PIV/wind tunnel testing as well as electrical enclosures.
Available Colours	Grey	Transparent	Off-White	White	Purple
Rigid	x	x	x	x	x
High Temp.				x	
Flame Retardant					
Shore Hardness	86D	84D	83D	80D	91D
Tensile Strength	38 - 44 MPa	41 - 46 MPa	-	66 - 89 MPa	72 MPa
Tensile Modulus	1,790 - 1,980 MPa	2,030 - 2,220 MPa	2,189 - 2,395 MPa	9,000 - 9,700 MPa	9,300 MPa
Flexural Strength	52 - 71 MPa	53 - 67 MPa	69 - 74 MPa	137 - 157 MPa	142 MPa
Flexural Modulus	1,520 - 2,070 MPa	1,560 - 2,040 MPa	2,692 - 2,775 MPa	8,700 - 10,200 MPa	9,900 MPa
Heat Deflection Temp.	54 - 62° C	41 - 46° C	58 - 70° C	62 - 250° C	59 - 72° C
Elongation Break	14 - 22%	4 - 7%	27 - 31%	0.8 - 1.9%	1.2%





Accura Xtreme



Stereolithography (SLA)
Material Datasheet



A durable, ABS-like plastic that is well suited for form, fit and function testing, on-demand parts and rapid prototyping master parts.

Measurement	Value
Shore Hardness	86D
Tensile Strength	38 - 44 MPa
Tensile Modulus	1,790 - 1,980 MPa
Flexural Strength	52 - 71 MPa
Flexural Modulus	1,520 - 2,070 MPa
Heat Deflection Temp.	60° C
Elongation Break	14 - 22%

Actual values may vary depending on build conditions. Our technical team can advise.



Accura ClearVue



Stereolithography (SLA)
Material Datasheet



A transparent, polycarbonate-like material. It is well suited for automotive lenses, medical models, and visualisation models.

Measurement	Value
Shore Hardness	84D
Tensile Strength	41 - 46 MPa
Tensile Modulus	2,030 - 2,220 MPa
Flexural Strength	53 - 67 MPa
Flexural Modulus	1,560 - 2,040 MPa
Heat Deflection Temp.	50 - 51° C
Elongation Break	4 - 7%

Actual values may vary depending on build conditions. Our technical team can advise.

Image TBC

UK1618



Stereolithography (SLA)
Material Datasheet



ABS-like white SL resin offering high accuracy and durability. Suitable for master patterns, concept models, and functional prototypes.

Measurement	Value
Shore Hardness	83D
Tensile Modulus	2,189 - 2,395 MPa
Flexural Strength	69 - 74 MPa
Flexural Modulus	2,692 - 2,775 MPa
Heat Deflection Temp.	58 - 70° C
Elongation Break	27 - 31%

Actual values may vary depending on build conditions. Our technical team can advise.



Accura HPC



Stereolithography (SLA)
Material Datasheet



A high speed, high rigidity nanocomposite. Suitable for automotive & aerospace wind tunnel models as well as jigs, fixtures & tooling applications.

Measurement	Value
Shore Hardness	80D
Tensile Strength	66 - 89 MPa
Tensile Modulus	9,000 - 9,700 MPa
Flexural Strength	137 - 157 MPa
Flexural Modulus	8,700 - 10,200 MPa
Heat Deflection Temp.	62 - 73° C
Elongation Break	0.8 - 1.9%

Actual values may vary depending on build conditions. Our technical team can advise.

Accura PIV



Stereolithography (SLA)
Material Datasheet



**A high rigidity, high contrast material for PIV testing.
Suitable for electrical enclosures, jigs, fixtures & tooling.
Also ideal for heat resistant applications.**

Measurement	Value
Shore Hardness	91D
Tensile Strength	72 MPa
Tensile Modulus	9,300 MPa
Flexural Strength	142 MPa
Flexural Modulus	9,900 MPa
Heat Deflection Temp.	59 - 72° C
Elongation Break	1.2%

Actual values may vary depending on build conditions. Our technical team can advise.