

ProMaker L Series COMPATIBLE MATERIALS

PLAST Materials were developed to offer each customer the specific ProMaker - PlastCure combination that best suits each application. Strong partnership developments enable addressing the most stringent demands for a wide range of applications from biomedical to industrial needs.

	PLASTCure Model 100	PLASTCure Model 200 *	PLASTCure Model 300 *	PLASTCure Clear 100	PLASTCure Cast 100	PLASTCure Cast 200 *	PLASTCure Flex 100	PLASTCure Rigid 10 500 *	PLASTCure ABS 3650 *
Appearance	Mat Opaque beige Mat opaque ivory	Hazy orange - skin color	Orange mat	Clear transparent - available in other colours	Red	Orange	Pink	Off-White	Translucent
Density (g/cm ³) @ 25°C	1.1 - 1.2	1.0 - 1.2	1.1 - 1.2	1.1 - 1.2	1.1 - 1.2	1.1 - 1.2	1.1 - 1.2	1.5 - 1.6	1.15 - 1.2
Viscosity (mPa.s)	1150 - 1400 @ 23°C	500 - 600 @ 28°C	2300 - 2500 @ 23°C	1000 - 1200 @ 23°C	150 - 200 @ 23°C	350 - 450 @ 23°C	700 - 900 @ 23°C	900 - 1100 @ 30°C	150 - 400 @ 30°C
Hardness	80 - 84 Shore D	81 - 85 Shore D	80 - 85 Shore D	80 - 84 Shore D	81 - 85 Shore D	80 - 85 Shore D	23°C: 70 - 80 Shore A 37°C: 50 - 70 Shore A	92 - 96 Shore D	84 - 85 Shore D
Tensile Strength (MPa)	N.A.	55 - 80 (ASTM D638)	N.A.	N.A.	N.A.	N.A.	6 - 10	38 - 42 (ASTM D638)	49 - 56 (ASTM D638)
Elongation @ break (%)	8 - 10	0,5 - 1,5 (ASTM D638)	1,2 - 2 (ASTM D638)	8 - 10	N.A.	1 - 5	90 - 95	0,5 - 1 (ASTM D638)	4 - 8 (ASTM D638)
Tensile Modulus (MPa)	N.A.	1900 - 2000 (ASTM D638)	1900 - 2100 (ASTM D638)	N.A.	N.A.	1800 - 2800	N.A.	10 000 - 11000 (ASTM D638)	3550 - 3650 (ASTM D638)
Tear Strength (N.mm ⁻¹)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	20 - 25	N.A.	N.A.
Cauterisation	Not relevant	Not relevant	Not relevant	Not relevant	Residual ash content <2% (at 470°C)	Residual ash content <0,1%	Not relevant	Not relevant	Not relevant
Flexural Strength (MPa)	90 - 115	N.A.	95 - 130 (ASTM D790)	90 - 115	81 - 85 (ASTM D790)	80 - 90	N.A.	145 - 155 (ASTM D790)	80 - 85 (ASTM D790)
Flexural Modulus (MPa)	1700 - 2200	1800 - 2100 (ASTM D790)	2150 - 2400 (ASTM D790)	1700 - 2200	2900 - 2950 (ASTM D790)	2200 - 3200	N.A.	10 000 - 11000 (ASTM D790)	2,300 - 2,500 (ASTM D790)
Notched Izod Impact (J/m)	N.A.	10 - 15 (ASTM D256)	N.A.	N.A.	N.A.	N.A.	N.A.	15 - 20 (ASTM D256)	14 - 26 (ASTM D256)
HDT @ 0.46 MPa (66 psi) (°C)	N.A.	90 - 100 (ISO 75-2)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	55 - 58 (ISO 75-2)
Biocompatibility	N.A.	N.A.	N.A.	DIN ISO 10993 - 5 DIN ISO 10993 - 10	N.A.	N.A.	DIN ISO 10993	N.A.	N.A.
Specification	<ul style="list-style-type: none"> • Easy to elaborate • High precision of the components • Quality look & feel • High workability 	<ul style="list-style-type: none"> • High temperature resistance • Smooth surfaces • Easy cleaning 	<ul style="list-style-type: none"> • High accuracy and excellent resolution • Ability to produce sharp edges and detailed parts • High green strength and good mechanical properties 	<ul style="list-style-type: none"> • Ultra clear material • Transparency • End products are biocompatible • Meet criteria regarding irritation, sensitisation and cytotoxicity for biological assessment of medical products (DIN ISO 10993) • Can be steam sterilised over longer period (>15 min.) 	<ul style="list-style-type: none"> • High reactivity & low viscosity • High green strength, excellent dimensional stability • Excellent burn out properties and low residue content • Can be placed directly into 800°C 	<ul style="list-style-type: none"> • Good reactivity and low viscosity • High accuracy • Ability to produce sharp edges parts • Outstanding burnout properties with nearly zero ash content 	<ul style="list-style-type: none"> • Unique flexible properties • High workability • End products are biocompatible • Meet criteria regarding irritation, sensitisation and cytotoxicity for biological assessment of medical products (DIN ISO 10993) 	<ul style="list-style-type: none"> • Excellent detail resolution & sidewall quality • Easy finishing • Superior thermomechanical properties 	<ul style="list-style-type: none"> • Good chemical resistance • High transparency • Fast & adaptable material to a wide broad of building conditions • May not require manual finishing
Typical application examples	Whole range of dental model applications from models for restorations to orthodontic applications	Models for thermoforming applications	Broad range of dental model applications	Wide range of medical application such like surgical patterns or operation models	Fulfills the high demands placed on the digital process chain	Highly suitable for direct investment casting or dental applications	Suitable for the manufacture of flexible objects for use in medical technology. Representation of the red and white aesthetics in a generatively fabricated dental model	Suitable for the manufacture of parts that require thermal stability, extreme accuracy and quick turnaround. Exceptional for parts that are designed for wind tunnel testing and unique application in rapid tooling or high temperature testing, electrical casings, automotive housings	Ideal for segments such like medical, electronic, aerospace and automotive markets that demand accurate RTV patterns, durable concept models, highly accurate and humidity & temperature resistant parts
By	Dreve	Prodways Material	Prodways Material	Dreve	Dreve	Prodways Material	Dreve	DSM Somos	DSM Somos

*Preliminary data. Performance characteristics of these materials may change according to product application, operating conditions, material combined or end use.