

PLASTCure **MATERIALS**

WWW.PRODWAYS.COM

A WIDE RANGE OF POSSIBILITIES

Our UV polymerization technology is designed to work with premium liquid resins and composites in the form of pastes that contain high levels of ceramic, metal, fibers, or nano-particles. Prodways is constantly working to develop new materials with unique mechanical properties (resistance and elasticity), physical properties, aesthetic properties (color and transparency, for example), and stability over time. With such a wide range of possibilities, Prodways can offer additive manufacturing solutions for many industries.

INNOVATION AND EXPERTISE

Prodways has a team of experts with the knowledge and experience to push materials technology into new territory. In addition, strong partnerships with established materials developers has allowed Prodways to be even more effective at providing solutions.





ProMaker L SERIES COMPATIBLE MATERIALS

PLASTCure materials have been developed by Prodways and our partners to work in combination with ProMaker machines, offering an effective additive manufacturing solution for many applications, including biomedical and industrial needs.

Excellent burn out properties and low residue content Outstanding burnout properties Outstanding burnout properties Wide range of building conditions Suited for tetrashell and foundry applications on large parts Highly suitable for investment casting of thin and accurate parts like dental brackets or jewelry Highly suitable investment casting of accurate and thin parts for dental or jewelry applications Wide range of building conditions Suited for tetrashell and foundry applications on large parts Highly suitable for investment casting of accurate and thin parts for dental or jewelry applications Suitable for the manufacture of parts that require thermal stability, extreme accuracy and quick turnaround. Exceptional for like impellers or aeronautical parts, even in Titanium or high accuracy, excellent resolutions.						
Liquid desning kg/mail 1.10 1.11 1.10 1.11 1.1		PLASTCure Cast 100*	PLASTCure Cast 200*	PLASTCure Rigid 10 500*	PLASTCure ABS 3650*	PLASTCure ABS 2800*
Viscosity # 200 200	Appearance	Red translucent	Orange translucent	lvory opaque	Clear	White
Minimum Mini	Liquid density (g/cm3)	1.10	1.11	1.60	1.11	1.11
Treatise Processing MINPALATTIA DESIS	Viscosity @ 28°C (cps)	100 - 300	200 - 400	900 - 1100	100 - 300	100 - 300
No.	Hardness (Shore D)	85 - 90	85 - 90	90 - 95	80 - 85	85-90
Part	Tensile Strength (MPa) ASTM D638	N/A	N/A	50 - 65	50 - 60	60 - 65
	Strain at Break (%) ASTM D638	N/A	N/A	0.5 - 1	3 - 5	3-5
PLASTCURM Rodel 100* PLASTCURM RODE RODE RODE RODE RODE RODE RODE RODE	Tensile Modulus (MPa) ASTM D638	N/A	N/A	7700 - 8200	2400 - 2700	3000 - 3400
Recursion Modulus MPA ASTM D790-10 2009-2009 1409-1400 1709-04-0509	Flexural Strength (MPa) ASTM D790-10	90 - 100	65 - 75	65 - 90	85 - 95	105 - 115
The Good May PC STM DGS64 NVA NA NA NA 170-175 NA	Elongation at Break (%) ASTM D790-10	5 - 6	5 - 6	1.0 - 2.0	10 - 12	6.5 - 8.5
NA NA 120-125 Sp. 77 70-75	Flexural Modulus (MPa) ASTM D790-10	2300 - 2500	1400 - 1800	7000 - 8000	1800 - 2200	2500 - 2600
Residual ash content Autor Absorption (%) ASTM D570 NA NA NA NA NA NA So -0.7 Fig. recent recently several recently and low viscosity. High prema transger, excellent furnitional stability. Application in the centre of	zod Impact (J/m) ASTM D256A	N/A	N/A	N/A	N/A	N/A
Noter Absorption (N) ASTM D570 High reactivity, 8 low viscosity High green strength; scellent dimensional stability specification Federification stability specification and content of the properties and low residue content of the properties and the properties and low residue content of the properties and the properties and low residue and the parts of the properties and the properties and low residue and the parts of the properties and the properties and the properties and properties and low residue and the parts of the properties and the	HDT @ 0.46 MPa (°C) ASTM D648	N/A	N/A	120 - 125	67 - 71	70 -75
Note Absorption (N) ASTM D570 High reactivity, Blow viscosity High green strength; excellent dimensional stability periodices sharp edged content of the properties and low residue content. Asternative density of the properties and low residue content. Asternative density of the properties and low residue content. Asternative density of the properties and low residue content. Asternative density of the properties and low residue content. Asternative density of the properties and low residue content. Asternative density of the properties and low residue content. Asternative density of the properties and low residue content. Asternative density of the properties and low residue content. Asternative density of the properties and unable and properties. Asternative density of the properties and unable and properties. Asternative density of the properties and unable and properties. Asternative density of the properties. Asternative density of the properties and unable and properties. Asternative density of the properties.	Residual ash content	< 2%	No residue	Not relevant	No residue	< 0.2%
High reactivity & low viscosity High green strength, excellent discretizations and strength content of the properties of the properties of the content of the properties of the properties of the content of the properties of						
typical Application Examples Highly suitable for investment captured grants and accurate parts in accurate and thin parts for dental or jewelry applications like dental brackets or jewelry Products of the parts of accurate and thin parts for dental or jewelry applications like dental brackets or jewelry Products of the parts of accurate and thin parts for dental or jewelry applications altability, extreme accuracy and parts that require themal stability, extreme accuracy and subject to the parts that require themal stability, extreme accuracy and subject to the parts that require themal stability, extreme accuracy and subject to the parts that require themal stability, extreme accuracy and subject to the parts that demant stability, extreme accuracy and subject to the parts that demant stability, extreme accuracy and excellent required to the parts that required themal stability, extreme accuracy and excellent required them	Specification	High green strength, excellent dimensional stability Excellent burn out properties and	High accuracy Ability to produce sharp-edged parts Outstanding burnout properties	sidewall quality Easy finishing Superior thermomechanical properties	Good chemical resistance Fast and adaptable material to a wide range of building conditions Suited for tetrashell and foundry	
PLASTCure Model 100* PLASTCure Model 300* PLASTCure Model 310* PLASTCure Clear 100* PLASTCure Clear 200* Appearance Beige opaque Reddish beige Beige opaque Clear Clear 1.00* Clear Clear 1.00* PLASTCure Clear 200* Clear Clear 2.00* Clear Clear 2.00* Clear Clear 2.00* PLASTCURE Clear 2	Typical Application Examples	casting of thin and accurate parts	Highly suitable investment casting of accurate and thin parts for	of parts that require thermal stability, extreme accuracy and quick turnaround. Exceptional for parts designed for wind tunnel testing and unique applications in rapid tooling or high temperature testing, electrical casings, and	Highly suitable for investment casting of industrial elements like impellers or aeronautical parts, even in Titanium or high	electronic, aerospace and automotive markets that demand high accuracy, excellent resolutio and surface finish for RTV patterr
Appearance Beige opaque Reddish beige Beige opaque Clear Clear Liquid density (g/cm3) 1.11 1.10 1.10 1.02 1.11 1.10 1.10 1.02 1.11 1.10 1.10	Ву	Dreve	Prodways Materials	DSM Somos	DSM Somos	DSM Somos
		PLASTCure Model 100*	PLASTCure Model 300*	PLASTCure Model 310*	PLASTCure Clear 100*	PLASTCure Clear 200*
Associaty @ 28°C (cps) 600-800 350-550 350-550 600-800 500-700 Aardness (Shore D) 85-90 85-90 85-90 80-85 85-90 Aardness (Shore D) 85-90 85-90 85-90 80-85 85-90 Aardness (Shore D) 85-90 85-90 85-90 80-85 85-90 Association (MPa) ASTM D638 45-49 72-76 72-76 N/A N/A Association (MPa) ASTM D638 1800-2100 2800-3100 2800-3100 N/A N/A Association (MPa) ASTM D790-10 80-90 110-120 110-120 85-95 110-120 Biongation at Break (%) ASTM D790-10 7-10 8-10 7-10 5-8 6-10 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2000-2200 2000-2200 2500-2700 Biongation at Break (%) ASTM D790-10 1900-2100 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-2600 2300-26	Appearance	Beige opaque	Reddish beige	Beige opaque	Clear	Clear
Ardrienses (Shore D) 85 - 90 85 - 90 85 - 90 85 - 90 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 85 85 - 90 86 - 90 8	iquid density (g/cm3)	1.11	1.10	1.02	1.11	1.10
Fersile Strength (MPa) ASTM D638 45 - 49 72 - 76 72 - 76 N/A N/A N/A N/A Fersile Modulus (MPa) ASTM D638 4 - 7 5 - 7 5 - 7 N/A N/A N/A Fersile Modulus (MPa) ASTM D638 1800 - 2100 2800 - 3100 2800 - 3100 N/A N/A N/A Fersile Modulus (MPa) ASTM D790-10 80 - 90 110 - 120 110 - 120 85 - 95 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 95 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 85 110 - 120 85 - 95 110 - 120 85 -	/iscosity @ 28°C (cps)	600 - 800	350 - 550	350 - 550	600 - 800	500 - 700
Figure 1 ASTM D638 4-7 5-7 5-7 5-7 N/A N/A N/A N/A Reside Modulus (MPa) ASTM D638 1800-2100 2800-3100 2800-3100 N/A N/A N/A N/A Reside Modulus (MPa) ASTM D790-10 80-90 110-120 110-120 85-95 110-120	Hardness (Shore D)	85 - 90	85 - 90	85 - 90	80 - 85	85 - 90
Arrain at Break (%) ASTM D638 4-7 5-7 5-7 N/A N/A N/A Rensile Modulus (MPa) ASTM D638 1800 - 2100 2800 - 3100 2800 - 3100 N/A N/A Relexaral Strength (MPa) ASTM D790-10 80 - 90 110 - 120 110 - 120 85 - 95 110 - 120 Relexaral Modulus (MPa) ASTM D790-10 7- 10 8- 10 7- 10 5 - 8 6- 10 Relexaral Modulus (MPa) ASTM D790-10 1900 - 2100 2300 - 2600 2300 - 2600 2000 - 2200 2500 - 2700 Rod Impact (J/m) ASTM D256A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	ensile Strength (MPa) ASTM D638	45 - 49	72 - 76	72 - 76	N/A	N/A
Rensile Modulus (MPa) ASTM D638 1800 - 2100 2800 - 3100 2800 - 3100 N/A N/A N/A N/A Revaral Strength (MPa) ASTM D790-10 80 - 90 110 - 120 110 - 120 110 - 120 85 - 95 110 - 120 110 - 120 110 - 120 110 - 120 110 - 120 110 - 120 110 - 120 110 - 120 110 - 120 110 - 120 110 - 120 1200 - 2200 200 - 2200 200 - 2200 2500 - 2700 200 - 200 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 2700 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200 200 - 200		4-7	5 - 7	5 - 7	N/A	N/A
Rexural Strength (MPa) ASTM D790-10 80-90 110-120 110-120 110-120 85-95 110-120 86-96 110-120 86-95 110-120 86-96 110-120 110-120 110-120 110-120 110-120 110-120 110-120 110-120 110-120 110-120 110-120 110-120 110-120 110-120 15-8 66-10 10-12	ensile Modulus (MPa) ASTM D638	1800 - 2100	2800 - 3100	2800 - 3100	N/A	N/A
Elongation at Break (%) ASTM D790-10 7 - 10 8 - 10 7 - 10 5 - 8 6 - 10 Elexural Modulus (MPa) ASTM D790-10 1900 - 2100 2300 - 2600 2300 - 2600 2000 - 2200 2500 - 2700 Ead Impact (J/m) ASTM D256A N/A N/A N/A N/A N/A N/A N/A EDT © 0.46 MPa (°C) ASTM D648 68 - 70 72 - 76 69 - 73 N/A 66 - 69 Residual ash content Not relevant Not relevant Not relevant Septecification Easy to elaborate High precision of the components Quality look & feel High workability High workability Especification Whole range of dental model applications form models for restorations to orthodontic applications Typical Application Examples Not relevant Not rele						
Elexural Modulus (MPa) ASTM D790-10 1900 - 2100 2300 - 2600 2300 - 2600 2000 - 2200 2500 - 2700 260 - 280 260 -		7 - 10	8 - 10	7 - 10	5 - 8	6 - 10
N/A						
Residual ash content Not relevant Not -0.8 Diffusion Not-0.8 Nof-0.8 Ultra-clear material with high transparency End products (DIN ISO 10993) Can be steam sterilized over longer period (>15 min.) Wide range of medical application such as surgical patterns or operation models Suited for thermoforming applications Suited for thermoforming applications Suited for thermoforming applications						
Not relevant Not relevant Not relevant Not relevant Not relevant Not relevant Not relevant Not relevant Color: 10% Not						
Water Absorption (%) ASTM D570 0.5 - 0.9 0.6 - 0.8 0.6 - 0.8 0.6 - 0.8 0.6 - 0.8 0.5 - 0.7 High accuracy and excellent resolution Ability to produce sharp edges and detailed parts High green strength and good mechanical properties Whole range of dental model applications Whole range of medical profundations or orthodontic applications Wide range of dental model applications or orthodontic applications Wide range of medical application and cytomodes for restorations to orthodontic applications Wide range of dental model applications applications Wide range of dental model applications applications Wide range of medical application and cytomodes for restorations to orthodontic applications applications Wide range of medical application application such as surgical patterns or operation models Wide range of medical application surgical patterns or operation models						
Easy to elaborate High precision of the components Quality look & feel High workability Pecification Whole range of dental model applications Whole range of membranics or models for restorations to orthodontic applications Figure 1 High accuracy and excellent resolution Ability to produce sharp edges and detailed parts High green strength and good mechanical properties High green strength and good mechanical properties High green strength and good mechanical properties Whole range of dental model applications Suited for thermoforming applications applications Wide range of dental model applications applications Wide range of medical application surface application surface application models Wide range of medical application surface application surface application models Wide range of medical application surface application surface application models Wide range of medical application surface application surface application models						
applications Examples applications from models for restorations to orthodontic applications such as such a		High precision of the components Quality look & feel	resolution Ability to produce sharp edges and detailed parts High green strength and good mechanical	resolution Ability to produce sharp edges and detailed parts High green strength and good mechanical	transparency End products are biocompatible Meet criteria regarding irritation, sensitization and cytotoxicity for biological assessment of medical products (DIN ISO 10993)	
Dreve Prodways Materials Prodways Materials Dreve Prodways Materials			properties			
	Typical Application Examples	applications from models for restorations to	Broad range of dental model applications Suited for thermoforming	applications Suited for thermoforming	period (>15 min.) Wide range of medical application such as surgical patterns or operation	transparent material such as surgical patterns or operation

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





