

## Rigid Opaque Materials

Primary material: VeroWhitePlus RGD835  
Secondary material: VeroBlackPlus RGD875

Property	ASTM	Units	RGD8310-DM, RGD8320-DM, RGD8330-DM
Tensile strength	D-638-03	MPa	50-65
Elongation at break	D-638-05	%	10-25
Modulus of elasticity	D-638-04	MPa	2000-3000
Flexural strength	D-790-03	MPa	75-110
Flexural modulus	D-790-04	MPa	2200-3200
HDT, °C @ 0.45MPa	D-648-06	°C	45-50
Izod notched impact	D-256-06	J/m	20-30

Primary material: VeroBlue RGD840  
Secondary material: VeroBlackPlus RGD875

Property	ASTM	Units	RGD8210-DM
Tensile strength	D-638-03	MPa	50-60
Elongation at break	D-638-05	%	15-25
Modulus of elasticity	D-638-04	MPa	2000-3000
Flexural strength	D-790-03	MPa	60-70
Flexural modulus	D-790-04	MPa	1900-2500
HDT, °C @ 0.45MPa	D-648-06	°C	45-50
Izod notched impact	D-256-06	J/m	20-30

Primary material: VeroWhitePlus RGD835  
Secondary material: TangoBlackPlus FLX980 / TangoPlus FLX930

Property	ASTM	Units	RGD8505-DM RGD8510-DM RGD8515-DM RGD8520-DM	RGD8525-DM  RGD8425-DM (only Objet TangoPlus FLX930)
Tensile strength	D-638-03	MPa	40-60	35-45
Elongation at break	D-638-05	%	15-25	20-30
Modulus of elasticity	D-638-04	MPa	1700-2300	1400-2000
Flexural strength	D-790-03	MPa	55-75	45-60
Flexural modulus	D-790-04	MPa	1500-2500	1400-1800
HDT, °C @ 0.45MPa	D-648-06	°C	40-45	40-43
Izod notched impact	D-256-06	J/m	22-35	22-35
Shore hardness (D)	D2240-05	Scale D	81.1-85.5	79.5-83.5

Primary material: VeroBlackPlus RGD875  
Secondary material: TangoBlackPlus FLX980 / TangoPlus FLX930

Property	ASTM	Units	RGD8555-DM RGD8455-DM
Tensile strength	D-638-03	MPa	35-45
Elongation at break	D-638-05	%	20-30
Modulus of elasticity	D-638-04	MPa	1400-2000
Flexural strength	D-790-03	MPa	45-60
Flexural modulus	D-790-04	MPa	1400-1800
HDT, °C @ 0.45MPa	D-648-06	°C	40-43
Izod notched impact	D-256-06	J/m	25-35
Shore hardness (D)	D2240-05	Scale D	79.5-83.5

Primary material: High Temperature RGD525  
Secondary material: TangoBlackPlus FLX980

Property	ASTM	Units	RGD5205-DM RGD5210-DM RGD5215-DM RGD5220-DM RGD5225-DM	RGD5250-DM*
Tensile strength	D-638-03	MPa	43-55	50-56
Elongation at break	D-638-05	%	9-15	18-27
Modulus of elasticity	D-638-04	MPa	1600-2700	1700-2400
Flexural strength	D-790-03	MPa	50-100	47-70
Flexural modulus	D-790-04	MPa	1700-2700	1400-2000
HDT, °C @ 0.45MPa	D-648-06	°C	46-60	50-56
Izod notched impact	D-256-06	J/m	16-19	16-26

Primary material: High Temperature RGD525  
Secondary material: TangoPlus FLX930

Property	ASTM	Units	RGD5150-DM
Tensile strength	D-638-03	MPa	45-60
Elongation at break	D-638-05	%	18-27
Modulus of elasticity	D-638-04	MPa	1700-2400
Flexural strength	D-790-03	MPa	47-70
Flexural modulus	D-790-04	MPa	1400-2000
HDT, °C @ 0.45MPa	D-648-06	°C	50-56
Izod notched impact	D-256-06	J/m	16-26

\* Vero-like DM with higher temperature resistance

Find material properties for color materials on the Color Digital Materials Data Sheet.

## Rigid Opaque Materials

Primary material: VeroWhitePlus RGD835  
Secondary material: TangoBlack FLX973

Property	ASTM	Units	RGD8110 - DM	RGD8120 - DM	RGD8130 - DM
Tensile strength	D-638-03	MPa	45-65	46-65	27-33
Elongation at break	D-638-05	%	10-30	10-30	25-35
Modulus of elasticity	D-638-04	MPa	2000-3000	2000-3000	1500-2100
Flexural strength	D-790-03	MPa	70-100	70-100	40-50
Flexural modulus	D-790-04	MPa	2000-3000	2000-3000	1400-1800
HDT, °C @ 0.45MPa	D-648-06	°C	43-50	43-50	40-45
Izod notched impact	D-256-06	J/m	20-35	20-35	30-40

## Transparent Materials

Primary material: RGD720  
Secondary material: VeroBlackPlus RGD875

Property	ASTM	Units	RGD7513-DM (Dots) RGD7523-DM (Grid)
Tensile strength	D-638-03	MPa	50-65
Elongation at break	D-638-05	%	15-25
Modulus of elasticity	D-638-04	MPa	2000-3000
Flexural strength	D-790-03	MPa	80-110
Flexural modulus	D-790-04	MPa	2700-3300
HDT, °C @ 0.45MPa	D-648-06	°C	45-50
Izod notched impact	D-256-06	J/m	20-30

Primary material: RGD720  
Secondary material: TangoBlack FLX973

Property	ASTM	Units	RGD7210-DM	RGD7220-DM	RGD7230-DM
Tensile strength	D-638-03	MPa	50-55	50-55	45-50
Elongation at break	D-638-05	%	15-25	15-25	15-25
Modulus of elasticity	D-638-04	MPa	2200-2500	2000-2300	1700-2000
Flexural strength	D-790-03	MPa	80-90	75-85	70-80
Flexural modulus	D-790-04	MPa	2300-2700	2200-2600	2100-2400
HDT, °C @ 0.45MPa	D-648-06	°C	45-50	45-50	45-50
Izod notched impact	D-256-06	J/m	20-30	20-30	20-30

Primary material: VeroClear RGD810  
Secondary material: TangoPlus FLX930 / TangoBlackPlus FLX980

Property	ASTM	Units	RGD8705-DM RGD8710-DM RGD8715-DM RGD8720-DM	RGD8625-DM RGD8725-DM
Tensile strength	D-638-03	MPa	40-60	35-45
Elongation at break	D-638-05	%	15-25	20-30
Modulus of elasticity	D-638-04	MPa	1,700-2,300	1,400-2,000
Flexural strength	D-790-03	MPa	55-75	45-60
Flexural modulus	D-790-04	MPa	1,500-2,500	1,400-1,800
HDT, °C @ 0.45MPa	D-648-06	°C	40-45	40-43
Izod notched impact	D-256-06	J/m	22-35	25-35
Shore hardness (D)	D2240-05	Scale D	81.1-85.5	79.5-83.5

## Polypropylene-like Materials

Primary material: DurusWhite RGD430  
Secondary material: VeroWhitePlus RGD835, VeroBlue RGD840, VeroBlackPlus RGD875 or RGD720

Property	ASTM	Units	RGD4310-DM RGD4410-DM RGD4510-DM RGD4710-DM
Tensile strength	D-638-03	MPa	30-40
Elongation at break	D-638-05	%	40-50
Modulus of elasticity	D-638-04	MPa	1200-1600
Flexural strength	D-790-03	MPa	40-50
Flexural modulus	D-790-04	MPa	1300-1700
HDT, °C @ 0.45MPa	D-648-06	°C	40-45
Izod notched impact	D-256-06	J/m	35-45

Primary material: VeroWhitePlus RGD835  
Secondary material: TangoPlus FLX930 / TangoBlackPlus FLX980

Property	ASTM	Units	RGD8430-DM RGD8530-DM
Tensile strength	D-638-03	MPa	29-38
Elongation at break	D-638-05	%	25-35
Modulus of elasticity	D-638-04	MPa	1100-1700
Flexural strength	D-790-03	MPa	35-45
Flexural modulus	D-790-04	MPa	1200-1500
HDT, °C @ 0.45MPa	D-648-06	°C	38-41
Izod notched impact	D-256-06	J/m	21-40
Shore hardness (D)	D2240-05	Scale D	76.1-81.7

## Polypropylene-like Materials

Primary material: VeroBlackPlus RGD875  
Secondary material: TangoPlus FLX930 / TangoBlackPlus FLX980

Property	ASTM	Units	RGD8460-DM RGD8560-DM
Tensile strength	D-638-03	MPa	29-38
Elongation at break	D-638-05	%	25-35
Modulus of elasticity	D-638-04	MPa	1100-1700
Flexural strength	D-790-03	MPa	35-45
Flexural modulus	D-790-04	MPa	1200-1500
HDT, °C @ 0.45MPa	D-648-06	°C	38-41
Izod notched impact	D-256-06	J/m	21-40
Shore hardness (D)	D2240-05	Scale D	76.1-81.7

Primary material: VeroClear RGD810  
Secondary material: TangoPlus FLX930 / TangoBlackPlus FLX980

Property	ASTM	Units	RGD8630-DM RGD8730-DM
Tensile strength	D-638-03	MPa	29-38
Elongation at break	D-638-05	%	25-35
Modulus of elasticity	D-638-04	MPa	1100-1700
Flexural strength	D-790-03	MPa	35-45
Flexural modulus	D-790-04	MPa	1200-1500
HDT, °C @ 0.45MPa	D-648-06	°C	38-41
Izod notched impact	D-256-06	J/m	21-40
Shore hardness (D)	D2240-05	Scale D	76.1-81.7

## Rubber-like Materials

Primary material: TangoBlackPlus FLX980 / TangoPlus FLX930  
Secondary material: VeroWhitePlus RGD835

Property	ASTM	Units	FLX9840-DM FLX9740-DM	FLX9850-DM FLX9750-DM	FLX9860-DM FLX9760-DM	FLX9870-DM FLX9770-DM	FLX9885-DM FLX9785-DM	FLX9895-DM FLX9795-DM
Tensile strength	D-412	MPa	1.3-1.8	1.9-3.0	2.5-4.0	3.5-5.0	5.0-7.0	8.5-10.0
Elongation at break	D-412	%	110-130	95-110	75-85	65-80	55-65	35-45
Shore hardness (A)	D-2240	Scale A	35-40	45-50	57-63	68-72	80-85	92-95
Tensile tear resistance	D-624	Kg/cm	5.5-7.5	7.5-9.5	11-13	15.5-17.5	23-25	41-44

Primary material: TangoBlackPlus FLX980 / TangoPlus FLX930  
Secondary material: VeroClear RGD810

Property	ASTM	UNIT	FLX9040-DM FLX9940-DM	FLX9050-DM FLX9950-DM	FLX9060-DM FLX9960-DM	FLX9070-DM FLX9970-DM	FLX9085-DM FLX9985-DM	FLX9095-DM FLX9995-DM
Tensile strength	D-412	MPa	1.3-1.8	1.9-3.0	2.5-4.0	3.5-5.0	5.0-7.0	8.5-10.0
Elongation at break	D-412	%	110-130	95-110	75-85	65-80	55-65	35-45
Shore hardness (A)	D-2240	Scale A	35-40	45-50	57-63	68-72	80-85	92-95
Tensile tear resistance	D-624	Kg/cm	5.5-7.5	7.5-9.5	11-13	15.5-17.5	23-25	41-44

Primary material: TangoGray FLX950  
Secondary material: VeroBlackPlus RGD875

Property	ASTM	Units	FLX9610-DM
Tensile strength	D-412	MPa	9-13
Elongation at break	D-412	%	45-55
Shore hardness (A)	D-2240	Scale A	75-85
Tensile tear resistance	D-624	Kg/cm	45-50

Primary material: TangoGray FLX950  
Secondary material: TangoBlack FLX973

Property	ASTM	Units	FLX9510-DM
Tensile strength	D-412	MPa	1-3
Elongation at break	D-412	%	35-45
Shore hardness (A)	D-2240	Scale A	60-70
Tensile tear resistance	D-624	Kg/cm	5.0-7.0

## Rubber-like Materials (cont.)

Primary material: TangoPlus FLX930 / TangoBlackPlus FLX980  
Secondary material: High Temperature RGD525

Property	ASTM	UNIT	FLX9540-DM FLX9640-DM	FLX9550-DM FLX9650-DM	FLX9560-DM FLX9660-DM	FLX9570-DM FLX9670-DM	FLX9585-DM FLX9685-DM	FLX9595-DM FLX9695-DM
Tensile strength	D-412	MPa	1.3-1.8	2.0-2.8	2.8-4.0	3.8-4.9	6.0-7.3	9.0-12
Elongation at break	D-412	%	100-130	80-100	60-80	50-70	35-50	27-40
Shore hardness (A)	D-2240	Scale A	39-41	52-55	60-67	70-78	85-87	95-96
Tensile tear resistance	D-624	Kg/cm	5.0-7.0	8.0-10.0	10.5-12.5	13-15	22.5-24.5	45-47

Primary material: TangoBlackPlus FLX980 / TangoPlus FLX930  
Secondary material: VeroBlackPlus RGD875

Property	ASTM	Units	FLX2140-DM FLX2040-DM	FLX2150-DM FLX2050-DM	FLX2160-DM FLX2060-DM	FLX2170-DM FLX2070-DM	FLX2185-DM FLX2085-DM	FLX2195-DM FLX2095-DM
Tensile strength	D-412	MPa	1.3-1.8	1.9-3.0	2.5-4.0	3.5-5	5.5-7.0	8.5-10
Elongation at break	D-412	%	110-130	95-110	75-85	65-80	55-65	35-45
Shore hardness (A)	D-2240	Scale A	35-40	45-50	57-63	68-72	80-85	92-95
Tensile tear resistance	D-624	Kg/cm	5.5-7.5	7.5-9.5	11.0-13.0	15.5-17.5	23-25	41-44

Primary material: TangoBlack FLX973  
Secondary material: VeroWhitePlus RGD835(I), VeroBlue RGD840(II), VeroBlackPlus RGD875(III), RGD720(III)

Property	ASTM	Units	FLX9110-DM(I) FLX9410-DM (II) FLX9210-DM (III) FLX9310-DM (III)	FLX9120-DM (I) FLX9420-DM (II) FLX9220-DM (III) FLX9320-DM (III)	FLX9130-DM (I) FLX9430-DM (II) FLX9230-DM (III) FLX9330-DM (III)
Tensile strength	D-412	MPa	2-4.	3-5	7-11
Elongation at break	D-412	%	45-55	35-45	35-45
Shore hardness (A)	D-2240	Scale A	75-85	80-90	90-100
Tensile tear resistance	D-624	Kg/cm	7-9	13-17	45-50

Primary material: TangoBlackPlus FLX930 / TangoPlus FLX980  
Secondary material: Digital ABS Ivory

Property	ASTM	Units	FLX95540-DM FLX95040-DM	FLX95550-DM FLX95050-DM	FLX95560-DM FLX95060-DM	FLX95570-DM FLX95070-DM	FLX95585-DM FLX95085-DM	FLX2195-DM FLX2095-DM
Tensile strength	D-412	MPa	2.3-2.5	3.2-3.5	3.8-4.3	4.7-5.0	7.0-7.7	9.8-10.6
Elongation at break	D-412	%	145-155	125-135	95-110	80-90	50-65	40-50
Shore hardness (A)	D-2240	Scale A	35-45	45-55	55-65	65-75	80-90	90-100
Tensile tear resistance	D-624	Kg/cm	5.5-6.5	8.5-10.5	10.0-12.0	13-15	22-26	42-52

**For More Information Contact:**



**Phoenix Analysis & Design Technologies**  
www.PADTINC.com  
480.813.4884  
sales@padtinc.com

**Stratasys Sales and Support**  
Arizona - Colorado - New Mexico - Utah



The data included in this brochure is for your information only and should not be considered specific advice. Each customer is responsible for the design and functionality of their parts. The sale and provision of the products described in this brochure are subject to terms and conditions outlined in Stratasys selling policies, contracts between the parties or Stratasys Terms and Conditions of Sale. This brochure is not intended to add to any such contract or terms.

© 2014 Stratasys Ltd. All rights reserved. Connex, Digital ABS, Digital ABS2, "For a 3D World", Stratasys, and Stratasys nautilus logo are trademarks of Stratasys Ltd, and/or its subsidiaries or affiliates and may be registered in certain jurisdictions. Objet-MaterialBrochures-DigitalMaterialsDatasheet-Connex3-05-14