



Objet Digital Materials™ Data Sheets

Rigid Opaque Materials

Primary material: Objet VeroWhitePlus RGD835
Secondary material: Objet 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: Objet VeroWhitePlus RGD835
Secondary material: Objet 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

Primary material: Objet High Temperature RGD525
Secondary material: Objet 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: Objet VeroBlue RGD840
Secondary material: Objet 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: Objet VeroBlackPlus RGD875
Secondary material: Objet 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

Primary material: Objet High Temperature RGD525
Secondary material: Objet 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

* Objet Vero-like DM with higher temperature resistance

Rigid Opaque Materials

Primary material: Objet VeroWhitePlus RGD835
Secondary material: Objet 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: Objet RGD720
Secondary material: Objet 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: Objet RGD720
Secondary material: Objet 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: Objet VeroClear RGD810
Secondary material: Objet 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

Polypropylene-like Materials

Primary material: Objet DurusWhite RGD430
Secondary material: Objet 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: Objet VeroWhitePlus RGD835
Secondary material: Objet 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

Polypropylene-like Materials

Primary material: Objet VeroBlackPlus RGD875
Secondary material: Objet 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

Primary material: Objet VeroClear RGD810
Secondary material: Objet 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

Rubber - like Materials

Primary material: Objet TangoBlackPlus FLX980 / TangoPlus FLX930
Secondary material: Objet 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	0.5-1.5	0.5-1.5	2-4	2-4	4-8.	15-25
Elongation at break	D-412	%	150-170	130-150	80-100	50-70	50-60	25-35
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	4-6	5-7	7-9	12-14	25-27	45-47

Primary material: Objet TangoBlackPlus FLX980 / Objet TangoPlus FLX930
Secondary material: Objet 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
Hardness Shore A	D-2240	MPa	35-40	45-50	57-63	68-72	80-85	92-95
Tensile Tear Resistance	D-624 Die C	N/mm	5.5-7.5	7.5-9.5	11-13	15.5-17.5	23-25	41-44

Primary material: Objet TangoGray FLX950
Secondary material: Objet 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: Objet TangoGray FLX950
Secondary material: Objet 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	5-7

Rubber - like Materials (cont.)

Primary material: Objet TangoPlus FLX930 / TangoBlackPlus FLX980

Secondary material: Objet 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
Hardness Shore A	D-2240	MPa	39-41	52-55	60-67	70-78	85-87	95-96
Tensile Tear Resistance	D-624- Die C	N/mm	5.96	9.18	11	13.82	23.2	45.9

Primary material: Objet TangoBlack FLX973

Secondary material: Objet VeroWhitePlus RGD835(I), VeroBlue RGD840(II), VeroBlackPlus RGD875(III), RGD720(IIII)

Property	ASTM	Units	FLX9110-DM (I) FLX9410-DM (II) FLX9210-DM (III) FLX9310-DM (IIII)	FLX9120-DM (I) FLX9420-DM (II) FLX9220-DM (III) FLX9320-DM (IIII)	FLX9130-DM (I) FLX9430-DM (II) FLX9230-DM (III) FLX9330-DM (IIII)
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: Objet TangoBlackPlus FLX980/TangoPlus FLX930

Secondary material: Objet 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

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