

Vero

The [Vero™ family](#) includes the Rigid Opaque collection of materials. These seven multi-purpose materials are most widely used for visual models, engineering prototypes, product assemblies and RTV molding patterns. Rigid Opaque materials are good material choices for light functional testing, patterns, prototypes and models.

Available in seven hues including blue, white, black, gray, cyan, magenta and yellow, the Vero family shares similar mechanical, thermal and electrical properties. The medium shades of VeroBlue™ and VeroGray™ provide the best detail visualization, without glare or darkness. The VeroVivid™ family of VeroCyanV™, VeroMagentaV™ and VeroYellowV™ offers more saturated and vibrant color. Vero PureWhite™ is twice as opaque, 20 percent brighter and more UV resistant than VeroWhitePlus™.

Vero PureWhite, VeroBlackPlus, VeroCyan, VeroCyanV, VeroGray, VeroMagenta, VeroMagentaV, VeroWhitePlus, VeroYellow, VeroYellowV

| | ASTM | Value |
|---------------------------------------|---------------------|--|
| Tensile Strength | D-638-03 | 50 – 65 MPa (7,250 – 9,450 psi) |
| Elongation at Break | D-638-05 | 10 – 25% |
| Modulus of Elasticity | D-638-04 | 2,000 – 3,000 MPa (290,000 – 435,000 psi) |
| Flexural Strength | D-790-03 | 75 – 110 MPa (11,000 – 16,000 psi) |
| Flexural Modulus | D-790-04 | 2,200 – 3,200 MPa (320,000 – 465,000 psi) |
| HDT, °C @ 0.45MPa | D-648-06 | 45 – 50 °C (113 – 122 °F) |
| HDT, °C @ 1.82MPa | D-648-07 | 45 – 50 °C (113 – 122 °F) |
| Izod Notched Impact | D-256-06 | 20 – 30 J/m (0.375 – 0.562 ft-lb/inch) |
| Water Absorption | D-570-98 24hr | 1.1 – 1.5% |
| Tg | DMA, E ₂ | 52 – 54 °C (126 – 129 °F) |
| Shore Hardness (D) | Scale D | 83 – 86 (Scale D) |
| Rockwell Hardness | Scale D | 73 – 76 (Scale M) |
| Polymerized Density | Scale M | 1.17 – 1.18 g/cm ³ |
| Ash Content (VeroGray, VeroWhitePlus) | USP281 | 0.23 – 0.26% |
| Ash Content (VeroBlackPlus) | USP281 | 0.01 – 0.02% |

Vero

| VeroBlue | | |
|-----------------------|---------------|--|
| | ASTM | Value |
| Tensile Strength | D-638-03 | 50 – 60 MPa (7,250 – 8,700 psi) |
| Elongation at Break | D-638-05 | 15 – 25% |
| Modulus of Elasticity | D-638-04 | 2,000 – 3,000 MPa (290,000 – 435,000 psi) |
| Flexural Strength | D-790-03 | 60 – 70 MPa (8,700 – 10,200 psi) |
| Flexural Modulus | D-790-04 | 1,900 – 2,500 MPa (265,000 – 365,000 psi) |
| HDT, °C @ 0.45MPa | D-648-06 | 45 – 50 °C (113 – 122 °F) |
| HDT, °C @ 1.82MPa | D-648-07 | 45 – 50 °C (113 – 122 °F) |
| Izod Notched Impact | D-256-06 | 20 – 30 J/m (0.375 – 0.562 ft-lb/inch) |
| Water Absorption | D-570-98 24hr | 1.5 – 2.2% |
| Tg | DMA, E» | 48 – 50 °C (118 – 122 °F) |
| Shore Hardness (D) | Scale D | 83 – 86 (Scale D) |
| Rockwell Hardness | Scale D | 73 – 76 (Scale M) |
| Polymerized Density | Scale M | 1.18 – 1.19 g/cm ³ |
| Ash Content | USP281 | 0.21 – 0.22% |

| System Availability | | | |
|-----------------------------------|------------------------------------|--|--|
| Printer | Minimum Layer Thickness Capability | Support Structure | Available Colors |
| Objet30 Pro™ | 28 microns (0.0011 in.) | SUP705 (WaterJet removable) | VeroBlackPlus™, VeroBlue, VeroGray, VeroWhitePlus |
| Objet30 Prime™ | 28 microns (0.0011 in.) | SUP705 (WaterJet removable), SUP706 (soluble) | VeroBlackPlus, VeroBlue, VeroGray, VeroWhitePlus |
| Eden260VS™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable), SUP706 (soluble) | VeroBlackPlus, VeroBlue, VeroGray, VeroWhitePlus |
| Objet260 Connex1™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable), SUP706 (soluble) | VeroBlackPlus, VeroBlue, VeroGray, VeroWhitePlus |
| Objet260 Connex3™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable), SUP706 (soluble) | VeroBlackPlus, VeroBlue, VeroCyan, VeroGray, VeroMagenta™, VeroMagentaV, Vero PureWhite, VeroWhitePlus, VeroYellow™, VeroYellowV |

Vero

System Availability (Continued)

| Printer | Minimum Layer Thickness Capability | Support Structure | Available Colors |
|---------------------------------------|------------------------------------|--|--|
| Objet500 Connex1™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable), SUP706 (soluble) | VeroBlackPlus, VeroBlue, VeroGray, Vero PureWhite, VeroWhitePlus |
| Objet350/500 Connex3™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable), SUP706 (soluble) | VeroBlackPlus, VeroBlue, VeroCyan, VeroGray, VeroMagenta, VeroMagentaV, Vero PureWhite, VeroWhitePlus, VeroYellow, VeroYellowV |
| Objet1000 Plus™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) | VeroBlackPlus, VeroBlue, VeroGray, Vero PureWhite, VeroWhitePlus |
| Stratasys J735™/J750™ | 14 microns (0.00055 in.) | SUP705 (WaterJet removable), SUP706 (soluble) | VeroBlackPlus, VeroBlue, VeroCyan, VeroGray, VeroMagenta, Vero PureWhite, VeroYellow, VeroMagentaV, VeroYellowV, VeroCyanV |

Stratasys Headquarters

7665 Commerce Way,
Eden Prairie, MN 55344
+1 800 801 6491 (US Toll Free)
+1 952 937-3000 (Intl)
+1 952 937-0070 (Fax)

stratasys.com
ISO 9001:2008 Certified

1 Holtzman St., Science Park,
PO Box 2496
Rehovot 76124, Israel
+972 74 745 4000
+972 74 745 5000 (Fax)


laserlines
 01295 672500
 3dworld@laserlines.co.uk
 www.3dprinting.co.uk

VeroUltra for J7/8 Series



VeroUltra™ includes VeroUltra™ White and VeroUltra™ Black colors and is available for J7/8 Series printers. VeroUltra™ is available in 3.6 cartridges for the J7 Series and in 4 kg cartridges for the J8 Series printers. The use of VeroUltra™ White and VeroUltra™ Black significantly improves the color opacity and color uniformity. It also provides a smoother texture enabling high quality plastic appearance, ultra-sharp graphics and high contrast print levels previously impossible to achieve.

Opaque materials facilitate the printing of thin parts, providing richer colors with sharper textures and texts. Opaque shades bring models to life with un-matched color realism

Vero Opaque for J7 Series

VeroUltra™ White (RGD825), VeroUltra™ Black (RGD865) available in 3.6 kg cartridges

Vero Opaque for J8 Series

VeroUltra™ White (RGD825), VeroUltra™ Black (RGD865) available in 4 kg cartridges

Vero Opaque Family for J7/8 Series

| | ASTM | Value |
|-----------------------|---------------|---------------------------------------|
| Tensile Strength | D-638-03 | 50 - 70 MPa (7250 - 10150 psi) |
| Elongation at Break | D-638-05 | 7 - 12 % |
| Modulus of Elasticity | D-638-04 | 2000 - 3000 MPa (290000 - 435000 psi) |
| Flexural Strength | D-790-03 | 75 - 100 MPa (10850 - 14500 psi) |
| Flexural Modulus | D-790-04 | 2100 - 2600 MPa (304600 - 377100 psi) |
| HDT, °C @ 0.45MPa | D-648-06 | 48 - 54°C (118 - 129°F) |
| HDT, °C @ 1.82MPa | D-648-07 | 45 - 50°C (113 - 122°F) |
| Izod Notched Impact | D-256-06 | 19 - 25 J/m (0.358-0.472 ft-lb/in.) |
| Water Absorption | D-570-98 24hr | 1.0 - 1.2 % |
| Tg | DMA, E» | 49-56 °C (120 - 133 °F) |
| Shore Hardness (D) | Scale D | 83 - 86 |
| Polymerized Density | ASTM D792 | 1.19 - 1.20 |

System Availability

| Printer | Min Layer Thickness | Support Structure | Available Colors |
|-----------|--------------------------|---|--------------------------------------|
| J7 Series | 14 microns (0.00055 in.) | SUP705 (WaterJet removable) SUP706 (soluble) | VeroUltra™ White VeroUltra™ Black |
| J8 Series | 14 microns (0.00055 in.) | SUP705 (WaterJet removable) SUP706 (soluble) | VeroUltra™ White VeroUltra™ Black |

USA - Headquarters

7665 Commerce Way
Eden Prairie, MN 55344, USA
+1 952 937 3000

EMEA

Airport Boulevard B 120
77836 Rheinmünster, Germany
+49 7229 7772 0

ISRAEL - Headquarters

1 Holtzman St., Science Park
PO Box 2496
Rehovot 76124, Israel
+972 74 745 4000

ASIA PACIFIC

7th Floor, C-BONS International Center
108 Wai Yip Street Kwun Tong Kowloon
Hong Kong, China
+ 852 3944 8888



GET IN TOUCH.

www.stratasys.com/contact-us/locations

laserlines

01295 672500
3dworld@laserlines.co.uk
www.3dprinting.co.uk

stratasys.com

ISO 9001:2015 Certified

© 2021 Stratasys. All rights reserved. Stratasys, Stratasys signet, PolyJet, J7 Series, J8 Series, Vero Opaque, VeroUltra White, VeroUltra Black are trademarks of Stratasys, Inc. All other trademarks are the property of their respective owners and Stratasys assumes no responsibility with regard to the selection, performance, or use of these non-Stratasys products. Product specifications subject to change without notice. MDS_PJ_VeroUltra for J7/8 Series _A4_0321a



VeroClear

Rigid Transparent Polyjet Material

VeroClear™, a transparent PolyJet™ photopolymer, offers strength, stiffness and impact resistance ideal for concept modeling, design verification and functional testing of clear parts.

VeroClear simulates PMMA (polymethyl methacrylate), commonly known as acrylic, and enables the visualization of internal components and features ideal for form and fit testing of see-through parts such as eyewear, light covers and medical devices. 3D print transparent parts, or blend with other PolyJet materials for a range of opacities, stunning hues or hardnesses, a versatility ideal for rapid prototyping. To achieve the best clarity, parts should be polished, lacquered or photo bleached.

| | ASTM | Value |
|-----------------------|---------------------|--|
| Tensile Strength | D-638-03 | 50 – 65 MPa (7,250 – 9,450 psi) |
| Elongation at Break | D-638-05 | 10 – 25% |
| Modulus of Elasticity | D-638-04 | 2,000 – 3,000 MPa (290,000 – 435,000 psi) |
| Flexural Strength | D-790-03 | 75 – 110 MPa (11,000 – 16,000 psi) |
| Flexural Modulus | D-790-04 | 2,200 – 3,200 MPa (320,000 – 465,000 psi) |
| HDT, °C @ 0.45MPa | D-648-06 | 45 – 50 °C (113 – 122 °F) |
| HDT, °C @ 1.82MPa | D-648-07 | 45 – 50 °C (113 – 122 °F) |
| Izod Notched Impact | D-256-06 | 20 – 30 J/m (0.375 – 0.562 ft-lb/inch) |
| Water Absorption | D-570-98 24hr | 1.1 – 1.5% |
| Tg | DMA, E ₂ | 52 – 54 °C (126 – 129 °F) |
| Shore Hardness (D) | Scale D | 83 – 86 |
| Rockwell Hardness | Scale M | 73 – 76 |
| Polymerized Density | ASTM D792 | 1.18 – 1.19 g/cm ³ |
| Ash Content | USP281 | 0.02 – 0.06% |

VeroClear

| System Availability | Minimum Layer Thickness | Support Structure | Available Colors |
|---------------------------|-----------------------------|--|--------------------------------|
| Objet30 Pro™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706B (soluble) | <input type="checkbox"/> Clear |
| Objet30 Prime™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706B (soluble) | <input type="checkbox"/> Clear |
| Objet Eden260VS™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706B (soluble) | <input type="checkbox"/> Clear |
| Objet260/500 Connex1™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706B (soluble) | <input type="checkbox"/> Clear |
| Objet260/350/500 Connex3™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706B (soluble) | <input type="checkbox"/> Clear |
| Stratasys J735™/J750™ | 14 microns (0.00055 in.) | SUP705 (WaterJet removable) SUP706B (soluble) | <input type="checkbox"/> Clear |
| Stratasys J55™ | 18 microns (0.0007 in.) | SUP710 (WaterJet removable) | <input type="checkbox"/> Clear |
| Objet1000 Plus™ | 16 microns (0.0006 in.) | SUP705 (WaterJet removable) SUP706B (soluble) | <input type="checkbox"/> Clear |


laserlines
 01295 672500
 3dworld@laserlines.co.uk
 www.3dprinting.co.uk

Stratasys Headquarters

7665 Commerce Way,
 Eden Prairie, MN 55344
 +1 800 801 6491 (US Toll Free)
 +1 952 937-3000 (Intl)
 +1 952 937-0070 (Fax)

1 Holtzman St., Science Park,
 PO Box 2496
 Rehovot 76124, Israel
 +972 74 745 4000
 +972 74 745 5000 (Fax)

stratasys.com
 ISO 9001:2015 Certified

© 2020 Stratasys Ltd. All rights reserved. Stratasys, Stratasys signet, Vero, VeroClear, Objet30 Pro, Objet30 Prime, Objet260 Connex1, Objet500 Connex1, Objet Eden260VS, Objet260 Connex3, Objet350 Connex3, Objet500 Connex3, Stratasys J735, Stratasys J750, Objet1000 Plus and PolyJet are trademarks or registered trademarks of Stratasys Ltd. and/or its subsidiaries or affiliates and may be registered in certain jurisdictions. All other trademarks belong to their respective owners. Product specifications subject to change without notice. Printed in the USA. MDS_PJ_VeroClear_0320a

VeroFlex & VeroFlexVivid

[VeroFlex™](#) and VeroFlexVivid™ are [PolyJet™](#) rigid photopolymer materials offering a flexibility ideal for rapid prototyping eyewear. Get prototypes with full-part realism in a wide range of colors, textures and materials from opaque to transparent, unique to the [Stratasys J735™](#) and [Stratasys J750™ 3D Printers](#).

VeroFlex and VeroFlexVivid accurately simulate the look, feel and function of eyewear, enabling improved performance testing. Eyewear prototypes produced with these materials can better withstand drop tests, lens-mounting and wearability tests.

Shorten product development cycles down to one to two months with a more efficient design workflow. Respond to market trends faster and improve eyewear sales with VeroFlex and VeroFlexVivid on your Stratasys J735 or J750 3D Printer.

| Mechanical Properties | Test Method | Value |
|-----------------------|-------------|--|
| Tensile Strength | D-6338-03 | 43 – 64 MPa (6,237 – 9,282 psi) |
| Elongation at Break | D-638-05 | 8 – 20% |
| Modulus of Elasticity | D-638-04 | 950 – 1,600 MPa (137,786 – 232,060 psi) |
| Flexural Strength | D-790-03 | 48 – 88 MPa (6,962 – 12,763 psi) |
| Flexural Modulus | D-790-04 | 1,600 – 2,300 MPa (232,061 – 333,587 psi) |

| Other | Test Method | Value |
|---------------------|-------------|--------------------------------------|
| Shore Hardness | D-2240 | 75 – 85 Scale D |
| HDT, @ 0.45 MPa | D-648-06 | 42 – 50 °C (108 – 122 °F) |
| Izod Notched Impact | D-256-06 | 20 – 30 J/m (0.375 – 0.562 lb/in) |

VeroFlex & VeroFlexVivid

| System Availability | Software | Support Structure | Layer Thickness Capability | Available colors |
|---------------------|---|--------------------------------|--|--|
| Stratasys J735/J750 | GrabCad Print™ 1.8 Advanced Material upgrade required | SUP705 (WaterJet removable) | High Quality mode: 14 microns (0.00055 in.) High Mix mode: 27 microns (0.001 in.) | VeroFlex Cyan™ VeroFlex Magenta™ VeroFlex Yellow™ VeroFlex White™ VeroFlex Black™ VeroFlex Clear™ VeroFlexVivid™ Cyan VeroFlexVivid™ Magenta VeroFlexVivid™ Yellow |


laserlines
 01295 672500
 3dworld@laserlines.co.uk
 www.3dprinting.co.uk

Stratasys Headquarters

7665 Commerce Way,
 Eden Prairie, MN 55344
 +1 800 801 6491 (US Toll Free)
 +1 952 937-3000 (Intl)
 +1 952 937-0070 (Fax)

stratasys.com
 ISO 9001:2008 Certified

1 Holtzman St., Science Park,
 PO Box 2496
 Rehovot 76124, Israel
 +972 74 745 4000
 +972 74 745 5000 (Fax)

©2018 Stratasys Ltd. All rights reserved. Stratasys, Stratasys signet, PolyJet, Stratasys J750, Stratasys J735, VeroFlex Cyan, VeroFlex Magenta, VeroFlex Yellow, VeroFlex White, VeroFlex Black, VeroFlex Clear, VeroFlexVivid, VeroFlexVivid Cyan, VeroFlexVivid Magenta and VeroFlexVivid Yellow are trademarks or registered trademarks of Stratasys Ltd. and/or its subsidiaries or affiliates and may be registered in certain jurisdictions. All other trademarks belong to their respective owners. Product specifications subject to change without notice.
 MDS_PJ_VeroFlexVeroVivid_1018a



DraftGrey



DraftGrey™ is a rigid material with medium opacity and smooth finish targeted for printing concept single material models at an affordable price.

| | ASTM | Value |
|-----------------------|---------------|---|
| Tensile Strength | D-638-03 | 50 – 65 MPa (7,250 – 9,450 psi) |
| Elongation at Break | D-638-05 | 10 – 25% |
| Modulus of Elasticity | D-638-04 | 2,000 – 3,000 MPa (290,000 – 435,000 psi) |
| Flexural Strength | D-790-03 | 75 – 110 MPa (11,000 – 16,000 psi) |
| Flexural Modulus | D-790-04 | 2,200 – 3,200 MPa (320,000 – 465,000 psi) |
| HDT, °C @ 0.45 MPa | D-648-06 | 45 – 50 °C (113 – 122 °F) |
| HDT, °C @ 1.82 MPa | D-648-07 | 45 – 50 °C (113 – 122 °F) |
| Izod Notched Impact | D-256-06 | 20 – 30 J/m (0.375 – 0.562 ft-lb/inch) |
| Water Absorption | D-570-98 24hr | 1.1 – 1.5% |
| Tg | D-7028 (DMA) | 52 – 54 °C (126 – 129 °F) |
| Shore Hardness | Scale D | 83 – 86 (Scale D) |
| Rockwell Hardness | Scale M | 73 – 76 (Scale M) |
| Polymerized Density | Scale D-792 | 1.17 – 1.18 g/cm ³ |
| Ash Content | USP281 | 0.23 – 0.26% |

System Availability

| Printer | Minimum Layer Thickness | Support Structure | Available Colors |
|------------------------|--------------------------|---|------------------|
| J826™ Prime / J835™ | 14 microns (0.00055 in.) | SUP705™ (water jet removable) SUP706B™ (soluble) | DraftGrey |
| J850™ Pro / J850 Prime | 14 microns (0.00055 in.) | SUP705™ (water jet removable) SUP706B™ (soluble) | DraftGrey |
| J55™ | 18 microns (0.0007 in.) | SUP710™ (soluble) | DraftGrey |
| Objet30™ V5 | 16 microns (0.0006 in.) | SUP705 (water jet removable) SUP706B (soluble) | DraftGrey |

Stratasys Headquarters

7665 Commerce Way,
Eden Prairie, MN 55344
+1 800 801 6491 (US Toll Free)
+1 952 937-3000 (Intl)
+1 952 937-0070 (Fax)

1 Holtzman St., Science Park,
PO Box 2496
Rehovot 76124, Israel
+972 74 745 4000
+972 74 745 5000 (Fax)

stratasys.com
ISO 9001:2015 Certified


laserlines
01295 672500
3dworld@laserlines.co.uk
www.3dprinting.co.uk

