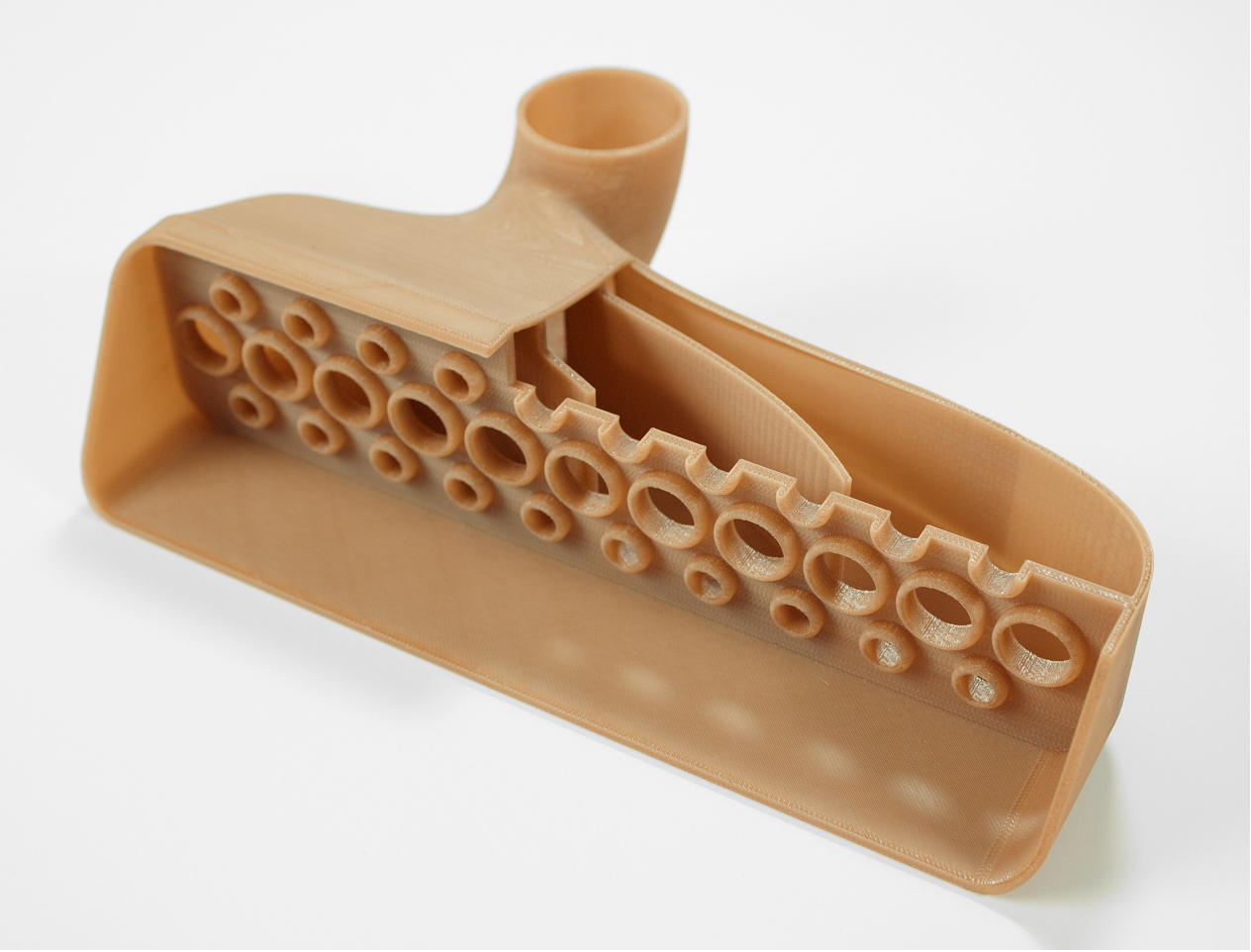
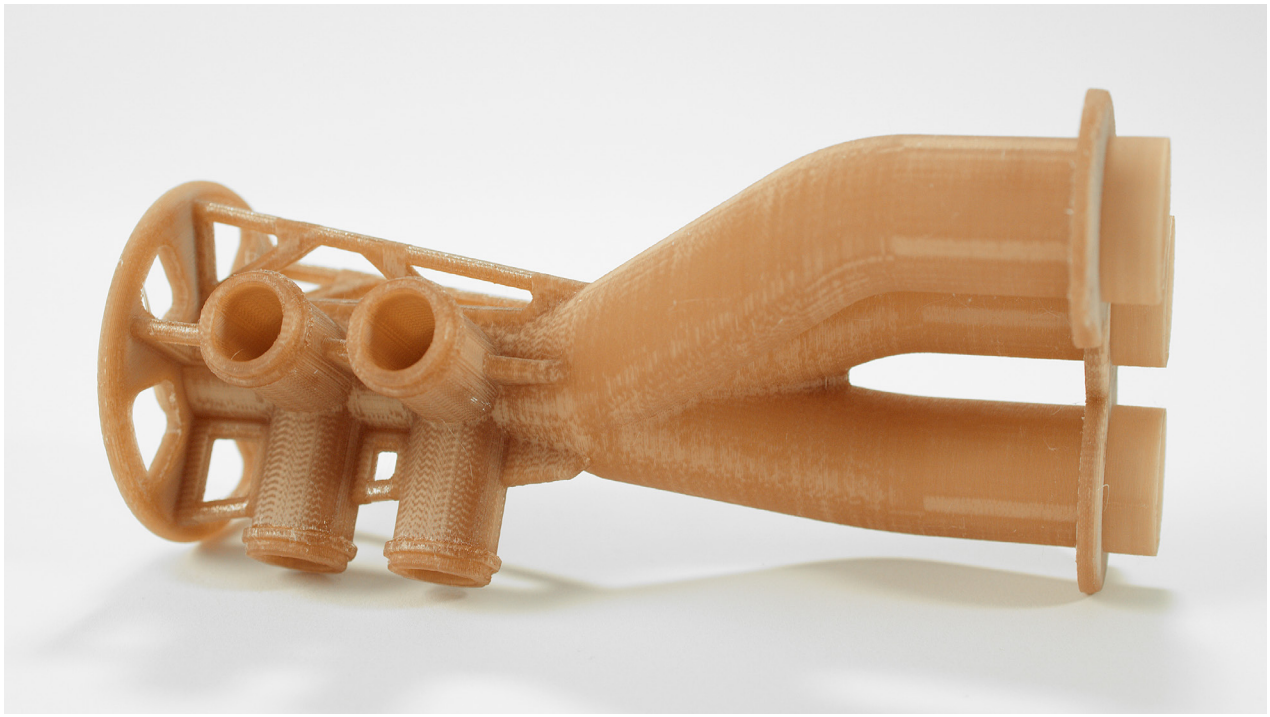
# VICTREX AM™ 200



## FDM® Thermoplastic Filament

The information presented are typical values intended for reference and comparison purposes only.
They should no be used for design specifications or quality control purposes.



# Overview

Victrex AM 200 filament is a high-performance, low-melt PAEK (polyaryletherketone) designed specifically for additive manufacturing. It offers performance capabilities similar to PEEK and PEKK but without the challenges associated with 3D printing those materials. Victrex AM 200 is formulated to provide dimensional stability and optimal interlayer bonding (Z-strength).

# Contents:

# Ordering Information

| Part Number | Description |
|---|---|
| **Filament Canisters** | |
| 355-70030 | Victrex AM™ 200 model material, 92.3 cu in. - Plus |
| 355-03120 | SR-100 Soluble Support, 92.3 cu in. - Plus |
| **Printer Consumables** | |
| 511-10350 | T14E tip |
| 511-10100 | T12SR100 tip |
| 325-00275-S | High temperature build sheet, 0.02 x 16 x 18.5 in. (0.51 x 406 x 470 mm) |

# Physical Properties

| Property | Test Method | Typical Values | |
|---|---|---|---|
| | | XY | XZ/ZX |
| Melting Point | ISO 11357 | 303 °C (577 °F) | |
| Glass Transition (Tg) - Onset | ISO 11357 | 151 °C (304 °F) | |
| Glass Transition (Tg) - Midpoint | ISO 11357 | 154 °C (309 °F) | |
| Crystallization Point | ISO 11357 | 249 °C (480 °F) | |

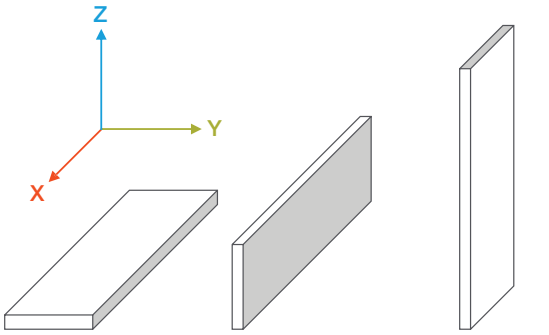
Data provided by Victrex.

# Mechanical Properties

Victrex AM 200 samples were printed with 0.010 in. (0.254 mm) layer heights on the Fortus 450mc. For the full test procedure please see the Stratasys Materials Test Procedure on www.stratasys.com.

## Print Orientation

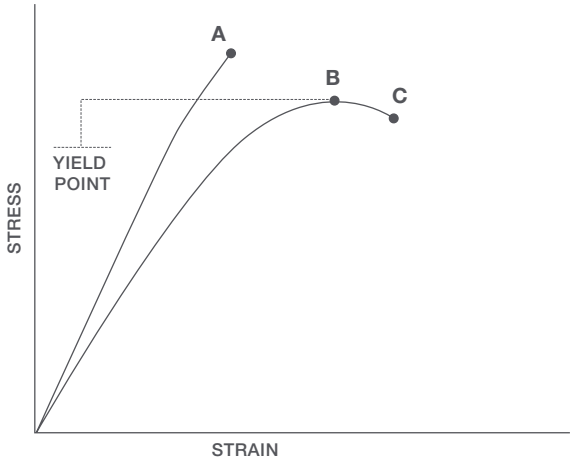
Parts created using FDM are anisotropic as a result of the printing process. Below is a reference of the different orientations used to characterize the material.




Flat (XY) On Edge (XZ) Upright (ZX)

## Tensile Curves

Due to the anisotropic nature of FDM, tensile curves look different depending on orientation. Below is a guide of the two types of curves seen when printing tensile samples and what reported values mean.




**A** = Tensile at break, elongation at break (no yield point)
**B** = Tensile at yield, elongation at yield
**C** = Tensile at break, elongation at break

| | | XZ Orientation[1] | ZX Orientation[1] |
|---|---|---|---|
| **Tensile Properties: ASTM D638** | | | |
| Yield Strength | MPa | 63.7 (1.24) | 28.1 (1.93) |
| | psi | 9250 (180) | 4070 (280) |
| Elongation @ Yield | % | 4.7 (0.14) | 1.5 (0.13) |
| Strength @ Break | MPa | 37.3 (16.7) | 28.1 (1.93) |
| | psi | 5410 (2420) | 4080 (280) |
| Elongation @ Break | % | 6.2 (2.6) | 1.5 (0.13) |
| Modulus (Elastic) | GPa | 2.10 (0.026) | 2.03 (0.021) |
| | ksi | 305 (3.8) | 294 (3.1) |
| **Flexural Properties: ASTM D790, Procedure A** | | | |
| Peak Stress | MPa | 91.7 (0.83) | 51.9 (6.4) |
| | psi | 13300 (120) | 7530 (930) |
| Modulus | GPa | 2.25 (0.023) | 1.72 (0.036) |
| | ksi | 327 (3.4) | 250 (5.2) |
| **Impact Properties: ASTM D256, ASTM D4812** | | | |
| Notched | J/m | 1560 (74.7) | 30.2 (4.8) |
| | ft*lb/in. | 29.2 (1.4) | 0.566 (0.090) |
| Unnotched | J/m | 3830 (360) | 124 (17) |
| | ft*lb/in. | 71.8(6.8) | 2.33 (0.31) |

[1] Values in parenthesis are standard deviations.

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