

Public printing recommendation

# Siraya Tech Fiberheart

## Black ABS Core CF

## Black

MaterialID MAT0207



3DPiceland Labs  
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WORKFLOW-RELIABILITY - Bug Fixes and Workflow  
Reliability  
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**Guidance boundary:** values below are shared base-material guidance resolved only through the canonical BaseMaterialId link. They are not manufacturer-, spool- or printer-specific validated settings. Missing fields remain Not recorded.

Overall  
**49/100**

Engineering axes  
**6/5**

Public rank  
**95 / 234**

MSRP USD/kg  
**35.99**

### Engineering profile



### Recommended applications

- Rigid brackets, fixtures and shape-stable prototypes
- Repeatable print jobs and production-style batches
- Cosmetic parts, concept models or low-load prototypes
- Avoid high tensile load applications
- Avoid high impact components

### Measured strengths

- Consistency: 81/100. Repeatability is one of the stronger signals in this material profile.
- Tensile: 24/100. Tensile behavior is competitive against the material-family context.
- Stiffness: 100/100. Stiffness is a relative advantage in this comparison group.

## Limitations

- Tensile: 24/100. Avoid using this as the primary choice for tensile-loaded parts.
- Impact: 27/100. Avoid high impact or shock-loaded components without additional validation.
- Layer adhesion: 13/100. Z-axis performance should be treated with caution.

## Engineering trade-offs

- Good repeatability does not compensate for low tensile capability in load-bearing designs.
- Stiffness is useful for shape stability, but impact tolerance is a separate limitation.
- The report should be read as a suitability warning rather than a general-purpose recommendation.

## Base-material printing guidance

| Guidance                   | Minimum           | Recommended | Maximum | Unit  |
|----------------------------|-------------------|-------------|---------|-------|
| Nozzle temperature         | 250               | 255         | 265     | °C    |
| Bed temperature            | 110               | 110         | 110     | °C    |
| Print speed                | 55                | 165         | 165     | mm/s  |
| Cooling                    | 15                | 20          | 20      | %     |
| Guidance                   | Value             |             |         | Unit  |
| Cooling guidance           | Low               |             |         |       |
| Drying temperature         | 75                |             |         | °C    |
| Drying time                | 6                 |             |         | hours |
| Enclosure                  | Required          |             |         |       |
| Printer / G-code reference | PrusaCoreOneL     |             |         |       |
| Slicer profile reference   | Prusa Buddy3D ABS |             |         |       |

## Print workflow checks

- Confirm nozzle temperature, bed temperature, speed, cooling and drying requirements from the manufacturer profile or spool label.
- Print a small validation part before committing to a long, costly or safety-relevant print.
- Orient the part so the governing load does not rely on an unverified or weak engineering axis.
- Reinforced filament: confirm an abrasion-resistant nozzle and manufacturer drying/storage requirements.

- Engineering/high-temperature family: confirm enclosure, ventilation, warping control and material-specific drying requirements.
- Layer-adhesion evidence is weak; avoid critical Z-axis loading without additional validation.

## Decision guidance

- Use this material mainly for low-load, visual or experimental parts.
- Do not choose it as a tensile-strength benchmark material.
- Avoid selecting it for impact-focused testing or shock-loaded designs.

## Stronger same-family alternatives

| MaterialID                                                                                                                                                            | Material | Manufacturer | Overall | Tensile | Impact |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|---------|---------|--------|
| Confirm exact settings against the manufacturer profile, spool label and actual printer/material combination. Results do not replace application-specific validation. |          |              |         |         |        |

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