

Public printing recommendation

# Winkle Standard Smokey Gray PLA Matte Gray

MaterialID MAT0158



3DPiceland Labs  
Generated with 3DPiceland Engineering Platform v60.0.6  
WORKFLOW-RELIABILITY - Bug Fixes and Workflow  
Reliability  
2026-08-25 19:05:46

**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  
48/100

Engineering axes  
5/5

Public rank  
108 / 234

MSRP USD/kg  
39.96

## Engineering profile



### Recommended applications

- Repeatable print jobs and production-style batches
- Cosmetic parts, concept models or low-load prototypes
- Avoid high tensile load applications

### Measured strengths

- Consistency: 83/100. Repeatability is one of the stronger signals in this material profile.
- Impact: 42/100. Impact behavior is competitive against the material-family context.

### Limitations

### Engineering trade-offs

- Tensile: 26/100. Avoid using this as the primary choice for tensile-loaded parts.
- Stiffness: 65/100. Expect less shape stability than the stronger materials in the same family.
- Layer adhesion: 22/100. Z-axis performance should be treated with caution.

- Good repeatability does not compensate for low tensile capability in load-bearing designs.
- 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 | 195     | 230         | 230     | °C   |
| Bed temperature    | 60      | 60          | 70      | °C   |
| Print speed        | 55      | 165         | 165     | mm/s |
| Cooling            | 20      | 80          | 85      | %    |

| Guidance                   | Value         | Unit  |
|----------------------------|---------------|-------|
| Cooling guidance           | High          |       |
| Drying temperature         | 50            | °C    |
| Drying time                | 5             | hours |
| Enclosure                  | Not required  |       |
| Printer / G-code reference | PrusaCoreOneL |       |
| Slicer profile reference   | Prusament PLA |       |

## 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.
- 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.
- Review the listed alternatives if the application needs stronger overall performance.

- Do not choose it as a tensile-strength benchmark material.

## Stronger same-family alternatives

| MaterialID | Material                                     | Manufacturer | Overall | Tensile | Impact |
|------------|----------------------------------------------|--------------|---------|---------|--------|
| MAT0069    | ProtoPasta HTPLA Blood of My Enemies PLA Red | ProtoPasta   | 100/100 | —       | —      |
| MAT0079    | Polymaker PolyLight PLA Pro Black            | Polymaker    | 65/100  | 35/100  | 52/100 |
| MAT0109    | Polymaker PolyMax PLA Black                  | Polymaker    | 64/100  | 32/100  | 62/100 |

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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