MAKERBOT® FILAMENT
THE BEST FILAMENT FOR YOUR MAKERBOT 3D PRINTER

MAKERBOT.COM/FILAMENT
MakerBot Filament sets the standard in its field. It undergoes a rigorous production process that includes exacting attention to detail, resulting in nearly seamless prints. Why is MakerBot Filament top notch?

**MAKERBOT PLA FILAMENT**
- The best and most consistent filament for the MakerBot Replicator® 2 and all Fifth Generation MakerBot Replicator 3D Printers
- When used with MakerBot Replicator 3D Printers, helps produce higher-quality prints, fewer filament problems, and less downtime
- Trusted by leading companies and institutions the world over

**MAKERBOT ABS FILAMENT**
- Optimized for MakerBot Replicator 2X Experimental 3D Printers
- When used with MakerBot Replicator 2X Experimental 3D Printers, helps produce higher-quality prints, fewer filament problems, and less downtime
- Great for designs that have interlocking or pin-connected pieces or are mechanical

**MAKERBOT FLEXIBLE FILAMENT**
- Optimized for MakerBot Replicator 2 Desktop 3D Printers
- Ideal for creating flexible hinges, joints, shaped parts, and items that can be shaped to fit the body
- Soft and easy to remold when heated with hot water; sets when cooled

**MAKERBOT DISSOLVABLE FILAMENT**
- Optimized for MakerBot Replicator 2X Experimental 3D Printers
- Specifically designed for use as a solid infill material with MakerBot ABS Filament
- Empowers you to create 3D prints with complexity, overhangs, and movable parts never before possible
- Easily dissolves in limonene (nontoxic detergent made from orange rinds) in just 8–24 hours

**PRECISE PRODUCTION**
Our filament production process involves using laser micrometers to measure the filament diameter in real time as it’s being produced. A consistent diameter ensures smooth printing. Any deviation that occurs during processing triggers an alarm that immediately alerts the manufacturing team.

**IN-HOUSE QUALITY CONTROL**
Our MakerBot Quality Team pulls random spools for in-house spot checks through our own triple-axis laser micrometer. The entire spool is run from start to finish, and data is recorded to confirm there’s no deviation from our standards. If a filament issue arises, we trace the spool lot number back to the second it left the production extruder, adding to recorded data that reduces future issues. All colors are continuously reviewed and approved by MakerBot.
CONSISTENT DIAMETER
MakerBot is extremely particular about the diameter of our filament. Too much variation in the tolerance can result in a host of issues when printing. The MakerBot spool specification is 1.75 mm (+/- .08 mm) and is controlled via defined quality checks in the manufacturing process.

1 JAMMING/CLOGGING
Filament that is too wide can halt the flow of the extruder, immediately causing prints to fail.

2 IRREGULAR FLOW
Filament that is too wide or too thin will lay down more or less material than accounted for by the extruder, causing the quality of the print to suffer.

3 SLIPPING
If the filament is too thin, the drive gear will not take a firm hold on the filament, resulting in thin areas in the print or a total clogging of the extruder.

4 OVALITY
Ovality is the measure of how close the filament is to a perfect circle. MakerBot requires an extremely low ovality of .07, which is calculated in real time.

If the ovality is too high, then the filament cross-section is not circular. The distorted filament causes the extruder drive gear to slip on the filament, resulting in thin gaps or areas in the print.

5 VOIDS
Voids are tiny pockets of air that occur within the filament. We require zero voids within our filament. Filament that contains voids can alter the amount of material extruded and thus the final appearance of the print.

MAINTAIN YOUR MAKERBOT LIMITED WARRANTY
Not only is MakerBot Filament made to the highest standards, but using it maintains your MakerBot Limited Warranty. Using alternate filament may result in damage to your MakerBot Replicator 3D Printer that won’t be covered by the warranty.