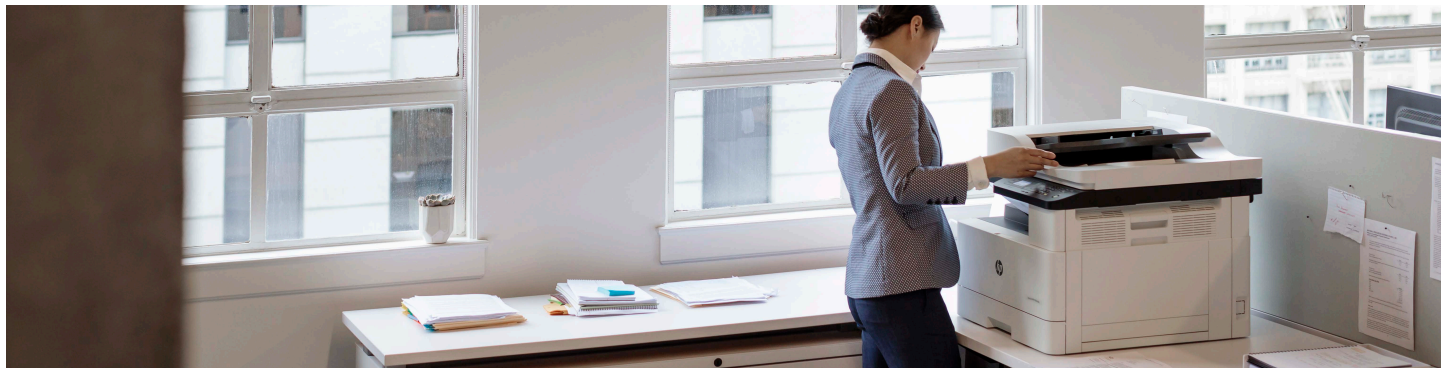


HP Toner performance and durability

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Durability

Original HP Toner cartridges are designed to work with HP Laser printers to provide high-quality output. During the fusing process, toner particles (which are plastic polymer with special additives designed for similar size and shape) are melted and adhere to the paper. Several external conditions, however, may adversely affect toner durability, including the printer's condition, environmental conditions such as heat, moisture and pressure.

HP Laser printers and Original HP toner cartridges undergo different types of rigorous tests, including:

- ISO 11798 Testing: Many HP Laser printers and HP Toner cartridges meet the international permanence and durability Standard ISO 11798. The test includes lightfastness, water resistance, and resistance to wear, heat, and folding. HP has commissioned these tests for many current HP Toner cartridges from RISE Research Institutes of Sweden AB.¹ HP ISO 11798 certificates can be downloaded using directions from hp.com/go/printpermanence.
- PTS Testing: HP LaserJet printers and Original HP Toner cartridges undergo the German test for notary and civil registry offices (DONot). The primary goal of this test is to have documents that cannot be changed without notice (Dokumentenechtheit). The test covers resistance to chemicals, water, folding,

rubbing, tape, aging, and forgery, as well as lightfastness and transfer of recording. The test is conducted by the independent PTS (Papiertechnische Stiftung) laboratories.² The sample PTS DONot certificates for HP printers and its Original HP Toner cartridges can be found here: <http://www8.hp.com/de/de/campaign/printer/laser/doku-echt-monolaserjet.html>.

Waterfastness

HP Laser Toner cartridges and toner supplies use toner comprised of plastic which is not water soluble. For this reason, pages printed with Original HP toner should not streak or run when exposed to water under typical office conditions. The ISO 11798 standard covers some water-resistance properties of toner on plain paper.

Lightfastness

The ISO 11798 standard also covers light fastness, and accelerated aging. HP internal test results show that monochrome and color laser prints resist fading from light exposure.¹

Paper is key

A document is only as good as the paper it is printed on. For a very long life, use paper for archival media as specified by ISO Standard 9706. HP Multipurpose Printer Papers are tested and meet ISO 9706 for permanence. Learn more at: hp.com/go/paper.

HP recommends Original HP Toner cartridges for page durability

In conclusion, toner composition is key for permanence characteristics. All tests are conducted with Original HP Toner cartridges. When non-HP cartridges are used in an HP printer, HP cannot guarantee that these test standards and desirable page durability properties are still met.

Final document and storage recommendations

Things you can do to help provide the durability of your document is to follow these guidelines:

- Print using an HP printer with Original HP Toner cartridges and paper that meets the ISO standards
- Avoid placing the documents in direct sunlight and long exposure to sunlight
- Avoid extreme environmental conditions (humidity, heat, cold, etc.)
- Best if diplomas, etc. are displayed under glass

Original HP Toner supplies are rigorously tested to work with your printer and HP business papers. When quality and reliability matter, Original HP Supplies are the right choice for your business.

1. See <https://www.ri.se/en> and to search for certificates, see <http://publiccert.extweb.sp.se/en/Product/List/1106>.

2. See <https://www.ptspaper.de/>.

3. Based on 2019 HP internal testing on plain paper.

For more information, please go to: hp.com/go/printpermanence