How Long Does an SSD Last?

A common question we hear is: **"How long will my SSD last?"**

The answer depends on how the drive is used, but the good news is that modern SSDs are built to deliver **years of fast, reliable performance**. Under normal everyday use, a quality SSD typically lasts **5 to 10 years or even longer**.

What Determines an SSD's Lifespan?

An SSD's lifespan is measured in three ways:

📅 1. Calendar Life

This refers to how many years an SSD can provide reliable service under normal use.

Typical lifespan: 5–10+ years

💾 2. Write Endurance (TBW)

TBW (Terabytes Written) measures how much data can be written to the SSD over its lifetime.

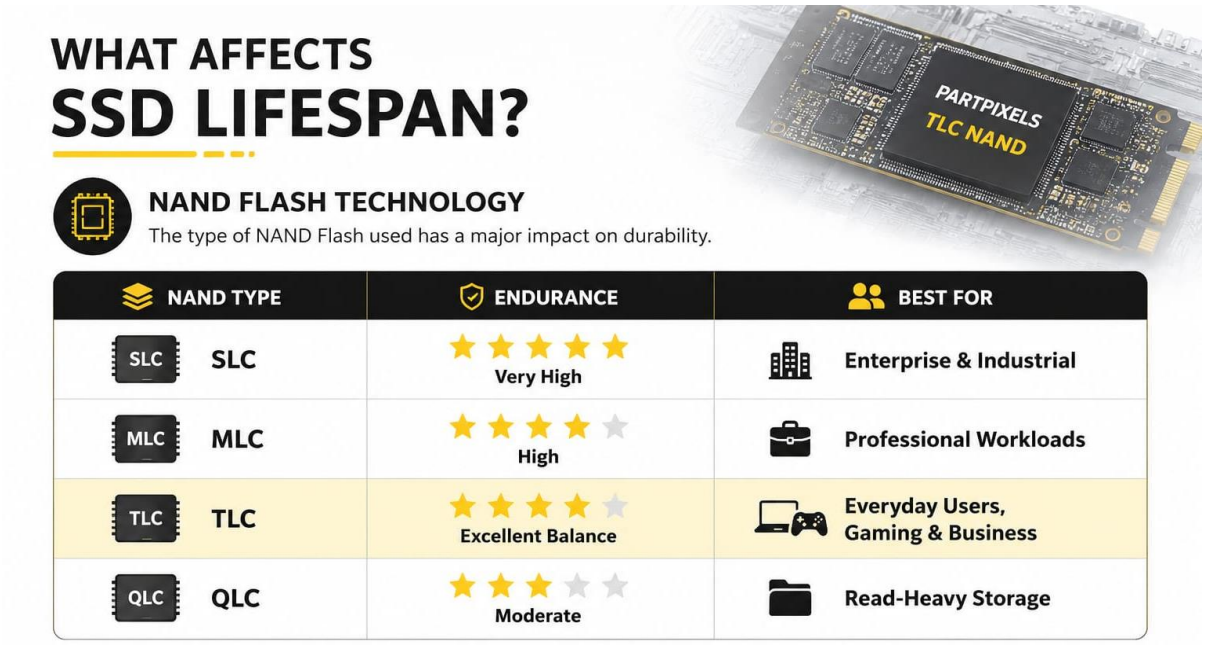
Typical endurance for a **1TB SSD**:

SSD Type	Typical TBW
SATA SSD	300–600 TBW
NVMe Gen3 SSD	600–1,200 TBW
NVMe Gen4 SSD	600–1,600 TBW

Even after reaching its rated TBW, an SSD does **not** suddenly stop working. It simply means the manufacturer's endurance rating has been achieved, and many drives continue operating reliably beyond that point.

❤️ 3. Drive Health

Modern SSDs continuously monitor their condition using SMART technology, allowing users to check the drive's overall health and performance over time.



Daily Usage

The amount of data written each day influences SSD lifespan.

For a **600 TBW SSD**, estimated endurance is:

Daily Data Written	Estimated Lifespan
20 GB/day	80+ years
50 GB/day	33 years
100 GB/day	16 years
200 GB/day	8 years
500 GB/day	3 years

The average home or office user typically writes **20–50 GB per day**, meaning a modern SSD is unlikely to wear out during normal use.

Operating Temperature

Keeping your SSD cool helps maximize performance and longevity.

Recommended temperatures:

- **Idle:** 30–45°C
- **Normal Use:** 40–60°C
- **Heavy Workloads:** Up to 70°C
- **Above 80°C:** Performance may automatically reduce to protect the drive.

Stable Power Supply

Unexpected power loss can occasionally cause:

- Data corruption
- Firmware issues
- Controller errors

Using a quality power supply or UPS can help protect your system and data.

Real-Life Usage Examples

👨‍💼 Office User

- Around **20 GB written per day**
- May take **80+ years** to reach a 600 TBW endurance rating.

🎮 Gamer

- Around **50 GB written per day**
- Approximately **33 years** to reach 600 TBW.

🎬 Content Creator / Video Editor

- Around **300 GB written per day**
- Approximately **5–6 years** to reach 600 TBW.

Tips to Extend SSD Life

Keeping your SSD healthy is simple:

- Keep **10–20% free storage space**
- Enable **TRIM** (supported by modern operating systems)
- Keep your SSD firmware updated
- Ensure proper airflow and cooling

- Monitor drive health occasionally
- Back up important files regularly