

# A Case for Slipped Discs

The stacking and racking of recordable optical discs is all too often an afterthought, but careful storage is important if data is to be properly protected. Darren Lock reports

**C**ONSUMERS have quickly adopted the CD-R/W optical disc format to archive a plethora of digital data. CD-R and DVD-R burners are shipped as standard in most PCs these days, and so it is only natural that the rewritable disc is as familiar now as the 3.5-inch floppy disc was in its heyday.

But whereas in the past, the average computer user was satisfied to own just a handful of floppy discs for their everyday use, our need for data storage is forever increasing. We can now edit broadcast-quality video on our home computer, record studio-quality music, create professional photography and write a lifetime's worth of novels. This increase in digital data use requires a storage medium, and while many initially use their PC's hard drive to store this information, for the final back-up, optical formats are often used to keep this personally valuable data stored for posterity.

While optical discs are more durable than floppy discs and other magnetic media (which are easily damaged by static or a worn out drive mechanism), they aren't indestructible.

"Consumers should also be educated that discs do not like sunlight and are ideally stored in cool, dark places"

Many of us wouldn't even dream of leaving a CD-R on our desktop without a protective cover, and there's good reason too. But are CD-R/W and DVD+-R/W media as fragile as a freshly fallen snowflake? Disc manufacturer Imation has



*The public should be aware that they must take good care of their optical media*

some good guidelines on how to handle its products. It advises: "Consumers should be aware that they must take good care of their optical media, because the shiny blank side of the disc is particularly sensitive to fingerprints, dust or any kind of physical damage such as scratches. Consumers should also be edu-

cated that discs do not like sunlight and are ideally stored in cool, dark places."

In fact, in Imation's media storage guide it informs us that those consumers who wish to keep data files for decades should store their discs in a pro-

TECTIVE case or box, away from direct UV radiation and kept at a temperature of between -5°C and 30°C. Ambient air humidity should be kept between 40 to 60 per cent for optimum results.

Jim Cook, product development manager for Univenture, outlines the problem of not keeping your CDs safe. "Scratches and fingerprints are by far the most common reasons why optical discs develop play-back problems. They prevent the drive from reading encoded data. Discs have some ability to 'error correct', but large scratches often interrupt disc tracking. DVDs are more sensitive to scratch defects. A scratch that is tolerable on a standard CD may render a DVD unplayable."

Of course, most users aren't going to take this much care

when it comes to storing their burnt optical media, but they certainly aren't going to leave them unprotected and vulnerable either. So what options are available for consumers to keep their media safe?

Firstly, the standard jewel case is the staple of the blank media industry. These sturdy cases are very familiar to the public as they are the same ones still used since the introduction of the compact disc. Unfortunately, despite being tough and ideal for CD storage, they take up lots of shelf space.

More recently, products such as the Super Jewel Case, clam shell and custom cases that hold multiple CDs, have been introduced to the marketplace. However, these cases are specialist (the Super Jewel Case being used primarily for

DVD-Audio releases) and have a very low consumer awareness profile. Also, because of unconventional shapes and sizes, these cases are unlikely to be adopted widely by the public, as they do not readily fit into standard jewel case-shaped storage solutions.

With the popularity of recordable CD media, consumers can easily be put into two distinct camps and their storage preferences can be dictated from this. The light user is more likely to purchase a 10-pack of blank media complete with jewel cases. These are relatively cheap and half of the storage problem is already addressed. However, the buyer of pre-packed media might still want a third-party solution to hold all these jewel cases. CD storage boxes and towers are commonplace now and are an extension of the storage solutions created to contain the music library of audio compact disc buyers.

Heavy recordable media users are more likely to purchase their blank discs in bulk and these invariably are sold in cake boxes of 25 to 100 units, without any form of jewel case storage. This presents the user with a major storage problem: what to do with an excess of discs once they have been burnt? Luckily, there are a number of multi-disc storage alternatives available now that don't require jewel cases or caddy-like holders.

### *Safety first*

One of the more popular developments in the area of multi-disc storage is the CD binder. Many of these use removable polyester sleeves that keep the disc safe while being flexible. Univenture has developed its own range of Safety-Sleeves. CEO Ross Youngs explains how CDs can benefit from them: "The Safety-Sleeve has been designed to have minimal contact with the surface of the disc and this allows dirt and debris to fall away harmlessly from the disc

surface, thus prevent scratches and surface damage."

It seems that these mass storage solutions are becoming very popular for handling a large amount of discs. Daniel Mayer, marketing director of STEAG HamaTech, explains how he stores his discs: "For audio CDs, which I carry around with me or feed into my CD car changer, I mostly use some sort of wallet with a capacity of between 20 and 100 discs. At home, I keep my CDs in their original jewel cases, especially in the case of audio CDs as I can quickly check the booklet for song titles."

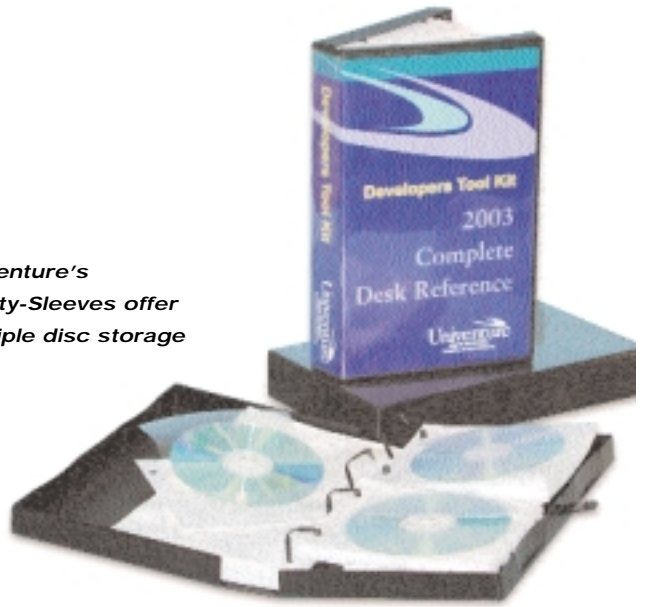
As for data discs, Mayer adds: "I don't need to buy 100 CD-Rs, so I tend to keep the original jewel case. If they don't have jewel cases, I have begun to use ejector cases, but these do not protect the discs from UV light, so there is a downside."

The ejector range of cases are slimline plastic cases that are just a little bit bigger and thicker than a standard CD disc, but has a mechanism and a button that ejects the disc out of the casing. Again, these are specialist options and have yet to really capture the public imagination.

### *Bulging wallets*

Cedric Collard of DaTARIUS echoes Mayer's use of wallets: "To be honest, I use jewel cases for special discs that I need to keep, such as software installation discs. I use a CD wallet for my CD/DVD-RW discs because I like to be able to carry them with me all the time. For office use, I use disc sleeves be-

*Univenture's Safety-Sleeves offer multiple disc storage*



cause I can put them in a folder with my documents."

Tom O'Riley, director of sales and marketing at OEM, also uses discs and disc storage in this fashion: "I typically use a combination of storage solutions. While I am mobile or in the car, I use a wallet of Tyvek-type sleeves and in the house I keep my CDs in the jewel cases in which they came. From an OEM perspective, we are seeing more customers asking for cardboard sleeves."

There are many different storage solutions available and you are more than likely to see consumers mixing and matching jewel cases with wallets. When newer, more advanced cases become part of consumer awareness, they are likely to adopt those too. Hormaz Kapadia, communications manager of Alpha Sweden, agrees. "We use a cocktail of different packing. In fact, we use whatever the disc comes in. Person-

ally, I prefer thin plastic covers that can be put in office binders with papers and photographs."

Of course, the world of discs packaging is moving at speed to attract consumers and to provide hi-tech solutions to the mountain of optical discs that threatens to swamp the average computer user. Once such computer add-on is the Century CD/DVD organiser, a hardware alternative that allows you to organise 100 CDs in a storage unit that connects via USB to your PC. Discs can be retrieved automatically using the supplied PC software and units can be stacked, so you can store a total of 1000 CDs in ten daisy-chained devices.

But when it comes to your average optical disc user, they are likely to use the storage product that is available and convenient to them, whether it is a jewel case, ejector case, wallet or hi-tech CD storage system. *MP*

## **The Benefits of Packaging**

*"The availability of DuPont Tyvek DVD comes at a critical time in the industry," says Kathleen Grier, digital packaging marketing leader for Tyvek Nonwovens. "The installed base of DVD-R and DVD players that can read recordable media is finally beginning to grow, with drive and media prices starting to match marketplace requirements. Industry projections indicate a major surge in this segment next year and replicators and content providers must be in position to manufacture vast quantities of DVD product that are of consistent quality and untainted by problems. Sleeves made of DuPont Tyvek will play a key role in providing that assurance."*