



AUDIO CASSETTE 2018 GUIDE

Copysmith

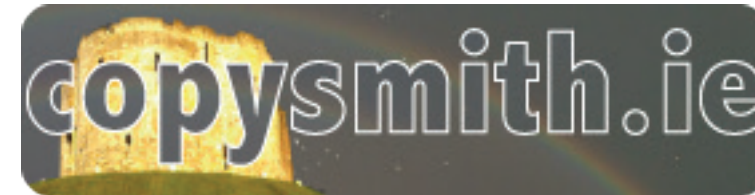
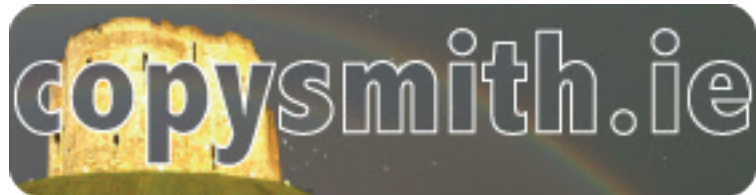
21 Bookdale Lawns, River Valley, Swords County Dublin, K67 V8Y7, Ireland

Tel: + 353 1 813 2951 sales@copysmith.ie www.copysmith.ie



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Making Your Sound Physical For 20 Years

This guide is intended to provide key information to both the experienced record label and to the independent artist undertaking their first Audio Cassette release. The guide outlines the products and services which we provide; as well as explaining everything you need to know about creating your Audio Cassette master, choosing your on-body print method and selecting your packaging.

If you have any further questions, prior to ordering or during your project, please don't hesitate to contact us via the details below, or directly with your dedicated account manager.

“With the retro media resurgence in full swing, the audio cassette is in demand once more, not only does the cassette provide a character and feel often missing from more recent formats, less compression actually creates a higher quality, textured audio.”

IN-HOUSE AUDIO CASSETTE SERVICES:

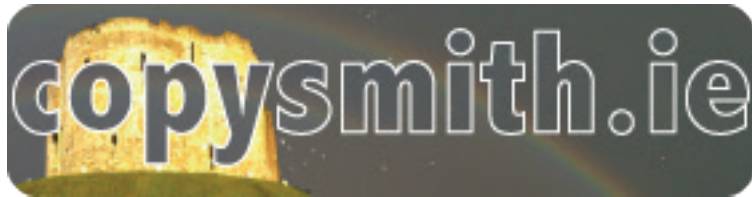
Cassette Duplication

Full Colour J-Card Printing

Cassette Sticker Printing




On-body Cassette Printing

Retail Packaging



Black C-Zero



Code	Description
 37006	Screw, tab in
 37026	Screw, tab out
 37005	Welded, tab out

Matt White C-Zero



Code	Description
 37004M	Matt Welded, tab out



Grey C-Zero



Code	Description
 37020	Welded, tab out

White C-Zero



Code	Description
 37003	Screw, tab in
 37023	Screw, tab out



Super Clear C-Zero



Code	Description
 37022	Screw, tab in



Clear C-Zero



Code	Description
 37025	Screw, tab out
 37021	Welded, tab out

Light Yellow C-Zero



Code	Description
 37055	Welded, tab out
 37029	Screw, tab out

Yellow C-Zero



Code	Description
 37056	Screw, tab out

Orange C-Zero



Code	Description
 37028	Screw, tab out


Red C-Zero



Code	Description
 37008	Welded, tab out

Purple C-Zero

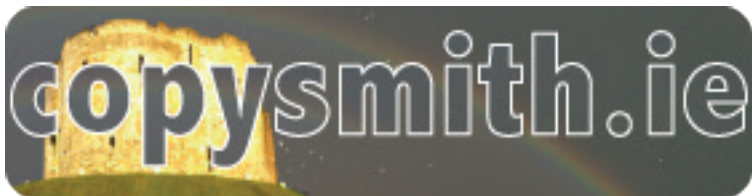


Code	Description
 37050	Screw, tab out

Pink C-Zero



Code	Description
 37057	Screw, tab out



Blue C-Zero



Code	Description
37007	Welded, tab out

Azuro Blue C-Zero



Code	Description
37058	Welded, tab out

Transparent Blue C-Zero



Code	Description
37040	Screw, tab out

Metallic Gold C-Zero



Code	Description
37048	Screw, tab out

Metallic Silver C-Zero



Code	Description
37049	Screw, tab out

The Cassette shells shown are our stocked shells.

Green C-Zero



Code	Description
37009	Welded, tab out

Mint Green C-Zero



Code	Description
37060	Welded, tab out

Transparent Green C-Zero



Code	Description
37042	Screw, tab out

Smokey Brown C-Zero



Code	Description
37059	Welded, tab out

Glitter 1 C-Zero



Code	Description
37045	Welded, tab in

For other colours, styles and effects please contact us with your ideas & requirements!

Clear/Clear Library Case



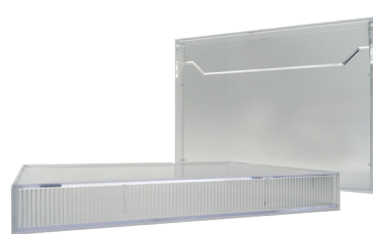
<input type="checkbox"/>	Code	Description
<input type="checkbox"/>	37001	with lugs
<input type="checkbox"/>	37053	no lugs

Clear/Black Library Case



<input type="checkbox"/>	Code	Description
<input type="checkbox"/>	37002	with lugs

Norelco Clear Double Case



<input type="checkbox"/>	Code	Description
<input type="checkbox"/>	37052	with lugs

Clear/White Library Case



<input type="checkbox"/>	Code	Description
<input type="checkbox"/>	37000	with lugs

PP Clear Library Case



<input type="checkbox"/>	Code	Description
<input type="checkbox"/>	37051	with lugs

Butterfly Double



<input type="checkbox"/>	Code	Description
<input type="checkbox"/>	37054	with lugs



On-Body Cassette Shell Printing - Digital

Bring your Audio Cassette into 2018 with a full colour UV digital print direct to the Cassette Shell. High resolution & vivid colours - let your release stand out from the crowd.

On-Body Cassette Shell Printing - Pad Print

A traditional pad print using original Cassette printing equipment. Although you are limited to a single colour print this is the definitive choice for an authentic

Audio Cassette print, straight out of the 80's.

Cassette Sticker Printing

Alternatively, go for full colour Cassette labels. This is a great option if colour-matching is important across all of your paper parts. Printed in-house, we can ensure fast turn around and strict quality control.

Printed Packaging!

The most common printed parts included with a Cassette release are:

- The J Card
- The O Sleeve
- The Download Card

Consider including the following information:

- Artist/Band info
- Production Team
- Dedications
- Lyrics
- Images & additional album artwork



The Manufacturing Process - Digital Loop Bin Duplication

‘We Never Use Tape to Tape Duplication’

Digital loop bin duplication gives the highest possible quality duplication and is the only method appropriate for Music Distribution.

This involves using a master to record to a pancake of audio tape:

Side A is recorded in normal direction and side B is recorded backwards onto the tape.
An inaudible cue tone is recorded at the start of each recording.

The programmed pancake is then loaded onto cassette winding equipment and cut, spliced and wound into the shell of the empty cassette.

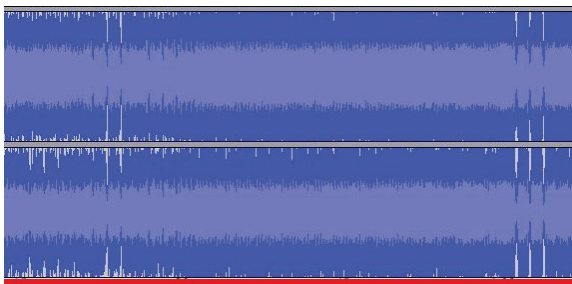
- This is all done at high speed, with professional automated equipment.
- As all of this is done in house, you can visit by appointment to see your job being produced.
- Constant checks are done throughout the job run to check the quality stays at a high level.
- You can rest assured your job is in safe hands as our team has more than 20 years experience with audio cassette manufacture.

Producing Your Master!

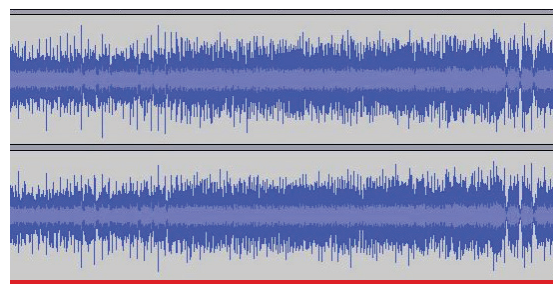
The key thing to note in producing your tape master: do not use compression.

Unlike a CD, Audio Cassette is an analogue format with very different mastering needs:

CD MASTER:



AUDIO CASSETTE MASTER:



The above waveforms show the same track compressed for CD, and correctly prepared for Audio Cassette. If you used the CD Master to produce a cassette the magnetic tape would be saturated. This will cause the bass to cut out the HF audio and clipping will distort the audio reproduction.

The Cassette master has no compression and more dynamic range. It will be great for tape. It has what is called headroom. Please check your audio and make sure it looks like the Audio Cassette example.

Producing Your Master!

Please use the following spec for mastering audio for tape:

- 44.1 kHz PCM signed 16 bit: This is the lossless codec for input into the duplication system. Pulse Code Modulation format. (Audio CD)
- Side A and side B can be split by tracks or one long track per side. Cassette time (C) is equal to longest side times 2.
- Try to make the side splits as equal as possible and side A longer than side B.

A PQ sheet is helpful if pauses between the tracks need to be added, otherwise it is assumed that pauses between the tracks have already been added to the audio.

Key Mastering Tips:

- Avoid Clipping at all costs - produce a 0dB audio with plenty of headroom at the audio peaks.
- Avoid frequencies below 30Hz - this may inhibit the cue tone signal during manufacture.
- Cassettes love midrange audio - try to minimize the low and high range. HF exceeding 12kHz will begin to degrade, 16kHz is pushing the limit.
- If in doubt - ask for a sample tape of your audio - this can be produced quickly and at a low cost!

