

# Technical requirements for magnetic cassettes production

## 1.1 Introduction

The pre-recorded magnetic cassette is a mechanical device with a magnetic tape used as sound carrier, coiled in a plastic cassette.

## 1.2 General information

In their outward look, dimensions and mechanical parameters, pre-recorded and blank cassettes follow the IEC 94-7 international standard. The pre-recorded cassette is a cassette containing a magnetic tape on which a stereophonic or monaural recording has been industrially recorded. The blank cassette is a cassette containing a magnetic tape of a length corresponding to the required playing time. The cassette, the print appearing on both sides of the cassette, the booklet and the case form a single whole, unless agreed otherwise.

## 1.3 Types of pre-recorded magnetic cassettes

Pre-recorded magnetic cassettes are divided into types C-10 to C-100 according to the total recording length:

Designation	Max. length of the longer side of the recording
C-10	7.5 min
C-20	12.5 min
C-30	17.5 min
C-40	22.5 min
C-50	27.5 min
C-60	32.5 min
C-70	37.5 min
C-80	42.5 min
C-90	47.5 min
C-100	50.0 min

## 1.4 Technical requirements

- The sound recording may be realised either in the Dolby B or in the Dolby HxPro system
- The cassette's magnetic tape will match type IEC I or IEC II depending on the customer's instructions. The recording on IEC II tapes is carried out in such a way so as to obtain a magnetic flux that corresponds to type IEC I.
- The quality of the recording on the magnetic tape corresponds to the recording quality of the master, with consideration of the technical characteristics specific to the magnetic cassette during recording and playback.
- Between the two sides of the cassette, the level of the recording will not differ by more than 3 dB.
- When recording under Dolby B, the Dolby relative level (200 nWb/m) must be maintained on the tape with a 1-dB accuracy.
- Recording must be carried out using a recording device with appropriate output characteristics, so as to allow for an output voltage within the prescribed interval.
- The nominal level of the recording must reach a reference level corresponding to a 250 nWb/m magnetic flux on the tape. If the recording reaches a higher level, the distortion factor of the third harmonic must not exceed 5%.
- The recording's signal-to-noise ratio exceeds -45dB.
- The moment of friction and thrust of the tape comply with the IEC 94-7 international standard.
- The standard colours of the cassette are: transparent, dark (transparent cassettes), white, black (opaque cassettes). For large orders exceeding 10,000 pc. other colours can be made available for a fee.
- The cassette label must be clearly readable and free of text flaws in accordance with the customer's order.
- The cassettes are printed with 2 colours at most, using the colour samples of the PANTONE rotating print technology. Colour registering is not available.

- The cassettes may be manufactured with multicolour paper labels pasted on the cassettes with a solvent.

### **1.5 Technical requirements for input media**

This information is provided in a separate document: “Technical requirements for input media”.

### **1.6 Technical requirements for printed material**

This information is provided in a separate document: “Technical requirements for printed material”.

### **1.7 Warranty**

The manufacturer’s period of warranty lasts for the time during which the customer is answerable to the further customer (the consumer), but not more than 12 months from the delivery of order. The manufacturer grants the customer a 6-months warranty from the day of the sale. A period of 15 calendar days is granted for the acknowledgement or refusal of a claim, beginning on the day of the claim. A longer period may be applied under exceptional circumstances and on the basis of a written agreement between the customer and the manufacturer.

### **1.8 Packaging, shipment and storage**

#### **1.8.1 Packaging**

At the customer’s request, the product (cassette, booklet and plastic box) may be packaged in cellophane and, if needed, with a “Der Grüne Punkt” emblem. The cassettes and the boxes are delivered in groups of 100 pc. in standard cardboard shipment boxes bearing the relevant content and quantity information. A different packaging may be arranged upon written agreement with the manufacturer.

#### **1.8.2 Storage**

The product may be stored only at temperatures between 5°C and 35°C with a relative air humidity of 85%. The intensity of the magnetic field in the storage environment may not exceed 0.4 A/cm.

#### **1.8.3 Shipment**

The cassettes may be shipped only in closed shipping environment and in such conditions as may not result in the degradation of the quality of the cassettes.

### **1.9 Ordering magnetic cassettes**

When an order is placed, the stipulations contained in the present technical requirements are binding, together with further conditions agreed in writing.