

maxell®

Compact Cassette Tape

ULTRA DYNAMIC Series

**High Output
High Energy
Extended Range**



ULTRA DYNAMIC
UD

MAXELL UD Cassette for Hi-Fi Recording!

We take pride in announcing the newly developed ultradynamic series. This UD Series, representing superhigh fidelity cassette tapes for music appreciation by audiophiles, possesses very high reliability in the electro acoustic properties, running efficiency, and uniformity.

The UD Cassette Series boast high sensitivity, a high S/N ratio, and a high saturation level. Its dynamic range in the extra-high-pass frequency characteristic is fully equivalent to open reel tapes. At last—here are low-noise, high-output tapes.

Compared with conventional cassette tapes, elongation in high-pass is as high as 8dB, and reproduction covering a wide range extending from ultralow sounds to superhigh sounds is possible.

FEATURES

Tape Characteristics

- Frequency characteristic exceeds the concept of conventional cassettes.
- Dynamic range equal to that of open reel tapes.
- Noise level not even disturbing to piano and pianissimo sounds.
- Distortion is completely shut out by high M.O.L.
- Sound quality is protected by low print through even during long-period preservation.

Structure

- Newly developed PX gamma hematite adopted.
- Superb durability ensured by adopting thermal hardening type binder.
- Output variation completely eliminated and high-pass output largely improved by mirror—surface finish.
- Cassette half in superhigh precision finish.
- Unique leader tape.
- Highly reliable pad structure.
- Stabilized running efficiency ensured by adopting teflon slip sheet.

Why Maxell UD Cassette excels . . .

PX Gamma Hematite

This PX (Pure X'tal) gamma hematite is an ideal hematite newly developed for superhigh-fidelity music recording. It excels in crystallization and granulation; also its percentage of voids is negligible.

- Uniform, ideal granular shape

The grain length of PX gamma hematite is 0.4 μm , and axial ratio (length: width) is 8:1. Its grain size is exceedingly uniform and its grain shape is ideal. As a result, the output in high-pass frequency is high, and the noise level and print through are drastically reduced.

- Small voids in crystal

The voids are very small, and packing density has been drastically improved. Consequently, high output, high M.O.L. and high saturation level never before possible have been attained.

- Special chemical treatment of grain surface
- Since special chemical treatment is applied to the PX gamma hematite surface, high-density packing has become possible, and its dispersion force and orientation force have been largely improved. A high saturation level with excellent linearity has been achieved, and extralow noise—especially the DC noise level—has been markedly reduced. As a consequence of chemical treatment, the antistatic effects have been improved, tape running efficiency has been largely enhanced, and drop-out has been completely eliminated.

Superior Mechanism

Past concept of moldings has been altered by precision-design of cassette half and parts.

The cassette half and its parts constitute an important portion of the cassette mechanism. A metal mold special design is adopted for the cassette half, based on high-impact material excellent in shock- and heat-resistant capacity. Dimensional precision, perpendicularity, horizontality, and true circularity are very high, completely eliminating running trouble, wow and flutter.

The utmost efforts and consideration have been concentrated on each and every part of the Maxell UD Cassette.

Maxell Ultra Dynamic Cassette			
	C60	C90	C120
Physical Properties			
Base	Tensitized Polyester		
Base film thickness (μm)	12	8	6
Magnetic layer thickness (μm)	6	4	3
Tape width (mm)	3.81	3.81	3.81
5% extention load (kg)	0.75	0.55	0.42
Cutting load (kg)	1.50	1.00	0.70
Resistivity to humidity and heat	good	good	good
Electro Acoustic Properties			
Bias (%)	96.0	96.0	95.0
Sensitivity (dB)	+1.2	+1.2	−1.0
Frequency response (dB)			
at 7,000 Hz	+2.8	+2.7	+3.0
10,000 Hz	+3.8	+3.6	+4.2
12,500 Hz	+5.0	+5.0	+5.0
Output uniformity (VU)	0.4	0.4	0.4
Maximum output level (dB)			
at 333 Hz	+1.4	+1.2	−2.0
8,000 Hz	−5.0	−5.5	−8.5
SN ratio (dB)	57.5	57.5	56.5
Erasing effect (dB)	71	71	71
Print through (dB)	63	58	57

* Reference tape: BASF Reference QP-12 C521V

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