

How DNM Stereo Solid Core cable works

The Cable Design

DNM use scientific principles to set the basic cable parameters, defining the magnetic and ultra-high frequency characteristics, both factors that really do affect the audio performance of a cable.

Less certain aspects of cable design, such as conductor shape and propagation velocity of the insulation material, add to the mystery of hi-fi cable design and increase the price but not the performance.

DNM Design consider the interface between amplifier and cable to be vital for best sound quality. We therefore concentrate on getting the basics right and our tests have confirmed that complex cables, with speculative design features, even though they cost much more, usually lack in sound quality compared with DNM cable.

The main features of DNM audio cables are described below. Three domestic DNM cables are now available at a modest price but they all give a very high performance.

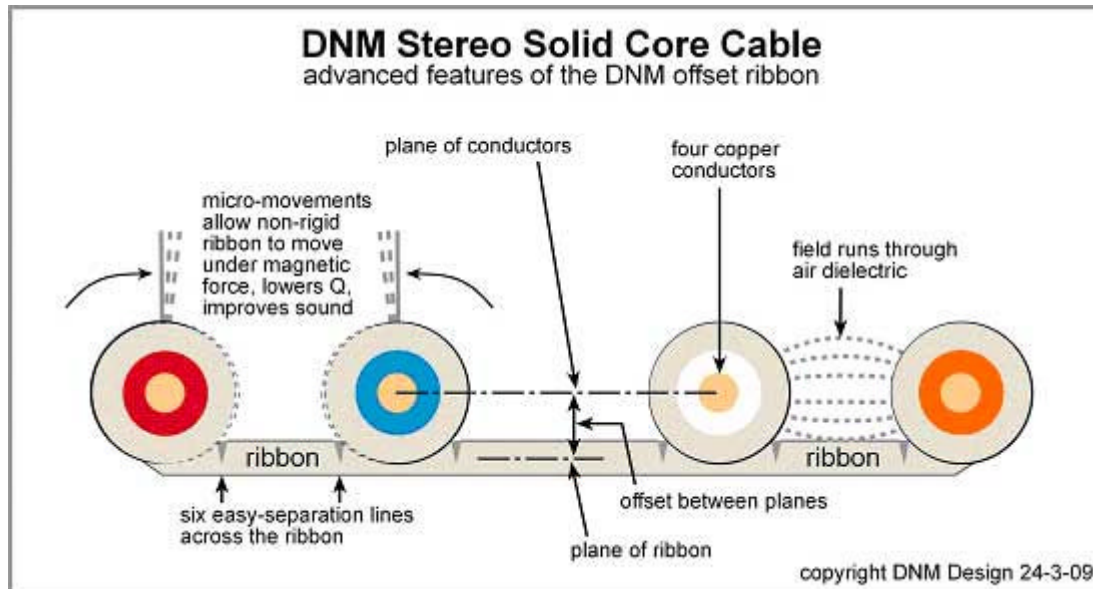
DNM Solid Core conductors

DNM use single solid-core (round-section high purity copper) conductors to ensure that magnetically generated back-emf is truly proportional to the signal. This contrasts with the untidy magnetically generated eddy currents that interfere with the audio signal in the conductors of heavy multi-stranded and flat section cables. The three DNM Stereo cables, use different conductor diameters to suit the application :-
1.00mm for normal speaker application
0.65mm for high sensitivity speaker application
0.4mm for interconnect application.

The insulation and cable construction

DNM stereo solid core audio cables use LDPE (low density polyethelene) insulation in a unique ribbon that is designed to improve the audio performance.

The DNM stereo ribbon is dimensioned for the application and it contains four conductors that carry two channels for stereo or one bi-wire channel. The ribbon is a key element because it controls the all-important spacing between the conductors defining the RCL balance (resistance, capacitance and inductance) which determines the ultra-high frequency loading- a factor that definitely affects the sound quality of the driving amplifier.



The DNM conductors are encased in a semi-transparent outer ribbon which has an offset between its own plane and the plane of the conductors, as shown above. This causes air to be the primary dielectric, reducing the capacitance between the conductors and increasing linearity. Carefully selected spacing between the conductors minimise the high frequency reflections that can reduce the performance of the amplifier.

An easy-separation feature is designed into the ribbon which has the added advantage of reducing its tendency to resonate when the speaker current causes the conductors to be magnetically pulled together (reducing the Q of the structure).

The combined effect of all the advanced features in DNM Stereo Solid Core cables offer a new level of sound clarity at a modest price.