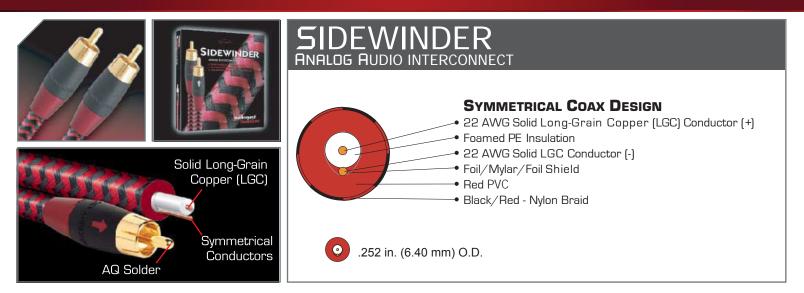
audioquest



At first glance, Sidewinder's design looks like a traditional coaxial cable. However, there are many very important differences, each of which greatly influence sound quality.

DESIGN BASICS: Sidewinder has identical conductors for the positive and ground connections. Underneath the 100% coverage foil shield is a bare conductor, exactly the same as the insulated center conductor. The conductor under the shield does double duty as a low distortion audio connection, and as the drain wire connecting the shield to ground.

CONDUCTORS: Both of Sidewinder's conductors are solid. Electrical and magnetic interaction between strands in a conventional cable is the greatest source of distortion, often causing a some what dirty harsh sound. Solid conductors are the most important ingredient enabling Sidewinder's very clear sound.

METAL: Sidewinder's LGC (Long Grain Copper) allows a smoother and clearer sound than cables using regular OFHC (Oxygen Free High Conductivity) copper. The "HC" in OFHC means High Conductivity. OFHC is a general metal industry specification as to "loss," without any concern for distortion. LGC, with it's fewer oxides within the conducting material, less impurities and less grain boundaries, has better performance.

INSULATION: Any solid material adjacent to a conductor is actually part of an imperfect circuit. Wire insulation, circuit board materials all absorb energy (loss). Some of this energy is stored and then released as distortion. Sidewinder uses air filled FPE (Foamed Polyethylene) insulation on both conductors because air absorbs next to no energy, and Polyethylene is low-loss and has a benign distortion profile. Thanks to all the air in FPE, it causes much less of the out-of-focus effect common to other materials.

TERMINATIONS: Precision gold plated plugs are carefully attached with the very best solder. Through choice of flux and metallurgy, AQ solder has been optimized to make alow distortion connection. All solder, including "silver solder," is a poor conductor. The difference you hear between solders is a result of connection quality. AQ Solder does not have a high silver content because the more silver there is in solder, the more difficult it is to make a good connection.

A combination of these major ingredients, and many more subtle details add up to explain how even an inexpensive cable like Sidewinder can sound so good.