



*Dielectric Propagation Velocity
By George Cardas*

While there is no current flow in dielectric materials, the change in voltage is passed along in the dielectric - much as the dielectric charges and discharges in a capacitor.

The rate of this charging and discharging is what determines the velocity of propagation in a cable. Solid dielectric materials cannot pass the charge as fast as the conductor can. This is why the VPROP rating of cables is always a percentage of the Speed of Light, rather than the Speed of Light, which is the propagation velocity of copper or silver.

In other cables, the discharge of the dielectric lags the changes in the conductor, causing a smearing of low level information in the cable.



Other Cables do not compensate for this differential in the cable itself. Some try to compensate with networks but the damage has already been done. Once the low level information in the signal has been smeared, it is lost.

Cardas Matched Propagation Conductors maintain low level information, and natural transients, like no other cable can. Matched propagation conductors do not exaggerate the leading edge of the signals or smear low level information as conventional conductors do.



This is a key to why Clear is a breakthrough cable.

