

Performance Benefits of Enhanced Electrodes

Reduction in Surge Impedance vs. Bare Wire

Below summarizes impedance and resistance testing completed on a bare wire and a ConduCrete enhanced wire.

Table 1: Reduction in Surge Impedance vs. Bare Wire

Trench	SAE Resistance Testing		Independent 3rd Party Impedance Testing		
	Average Resistance measured with LEM (Ω)	Average Resistance measured with AEMC 3731 Ground Resistance Tester (Ω)	Electrode Impedance 25' Counterpoise Testing (V/A)	Electrode Impedance 75' Counterpoise Testing (V/A)	Electrode Impedance 280' Counterpoise Testing (V/A)
Bare Wire 2/0	63.5	67.7	71.1	74.7	36.4
ConduCrete Enhanced Wire 2/0	11.2	11.4	14.1	14.7	16
R-Value Reduction	82%	83%	80%	80%	56%

The significant impedance reduction seen in the ConduCrete enhanced wire indicates the increased surface area and superior connection to surrounding soil (or rock) will greatly improve surge dissipation characteristics.

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