



## Type XS0400E-018 (Shielding Grade)

ARACON<sup>®</sup> XS0400E-018 represents a new class of conductive yarn intended for braided EMI shielding in cables and harnesses, especially where weight savings is important. The textile-like qualities and flexibility of ARACON fibers are unique in conductive products, making high coverage easy to obtain without the stiffness or loss of push-back capability inherent to metal wire overbraiding. Since ARACON fibers are built on a modified KEVLAR<sup>®</sup> base, the yarns have very high strength as well as good thermal and dimensional stability. Exceptional strength and textile-like handling also can permit faster braiding speed vs. metal wire products.

As with other materials, shielding effectiveness with ARACON fiber is dependent on details of cable design. When braided or woven, the natural tendency for the fine, lightweight fibers is to spread out for high coverage, typically greater than 95%. This translates into superior shielding effectiveness vs. copper wire, and the potential for significant weight savings. Also, the outstanding strength and processibility of ARACON yarns uniquely permits them to be braided directly with metal wire products as well. Such "hybrid" shielding can have tailored electrical performance advantages in addition to weight savings and increased strength.

Type XS0400E-018 has the following general features:

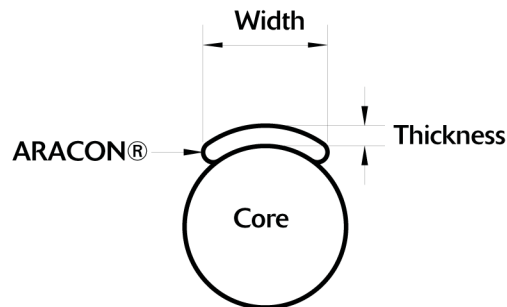
- Silver-clad for maximum conductivity and solderability.
- Weighs 60% less than copper wire at equal volume.
- Construction equivalent to 178 bunched stranded ends of 54 AWG wire.
- Can be braided on same equipment used for metal wire.
- Can be soldered or crimped.
- Available on 3,000 ft. Wardwell spools or 2,000 ft. Butt braider bobbins.

## Typical Properties

The following data is based on testing of sampled production of this product. Please contact the factory for minimum/maximum values or additional performance variables.

## Data: XS0400E-018

Braided Bundle Dimensions (see diagram)	
Width	0.022" (0.56mm)
Thickness	0.003" (0.076mm)
Yarn Weight	0.107 lbs/K ft. (0.159 kg/km)
Yarn DC Resistance, 20°C	850 ohms/K ft. (2,800 ohms/km)
Break Load	15 lbs.
Operating Temperature Range	-65°C to 200°C



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