



Wrap Around EMI Shielding for Vehicle Harness

PROBLEM:

A company that modifies vans to allow for wheelchair access needed help shielding a large electrical cable harness. The hybrid vehicles this company was using have a large, high-voltage, cable that had to be re-routed to make room for the custom ramp and lift hardware they needed to incorporate.

REQUIREMENTS:

The electrical harness in the stock vehicle was routed the length of the van and was partially shielded with conduit, braided sleeving, and split tubing for different portions of the cable run. The plan for relocating the harness allowed for reusing the connectors and wiring but the rigid outer protection and EMI shield could not be repurposed. A new outer protective sleeve needed to be installed that matched the performance of the OEM cable protection.

SOLUTION:

Custom Z-Shield (AL)

Zippertubing provided a customized version of their Z-Shield (AL) wrap-around EMI shielded cable jacketing. The aluminum foil shield in this solution provided similar performance to the OEM braided sleeving and conduit. The outer polyurethane protective layer provided a water-tight, flexible, and durable exterior layer to protect the wire harness even in areas where it is exposed at the bottom of the vehicle.

CONCLUSION:

This company was very happy with Zippertubing's complete solution. The wrap-around installation of the Z-Shield product saved them installation time because they could leave the connectors attached at both ends of the harness and no further disassembly or reassembly would be required. They also were pleased that this product could be delivered and installed quickly to help support their production schedule and backlog of orders for the conversion of this model of hybrid van.

