

New life cycle cost study from DTi highlights 50% savings using their advanced Grommet Edging

By **Melissa Silva** on October, 10 2017 | Cabin Maintenance



A new life cycle cost (LCC) research study from Device Technologies, Inc. (DTi), leader in the design and manufacture of wire protection, enclosure related and environmental protection components, highlights that switching from the traditional nylon grommet MS21266 to the more advanced M22529/2 grommet edging can dramatically save time and money over an aircraft's 30-year life cycle.



The study shows that the traditional nylon grommet MS21266 is 206% more expensive than M22529/2 when the 30-year costs of installation, inspection, replacement and repair are assessed. This means M22529/2 is only 48.5% of the nylon grommet cost — a significant savings. DTi will be showcasing the Spring-Fast Aero Grommet Edging M22529/2 at the NBAA Business Aviation Convention & Exhibition (NBAA-BACE) in Las Vegas, which starts today and runs until Thursday (October 12).

"The use of advanced avionics in aircraft has led to a proliferation of wiring harnesses and cable

assemblies,” said Nick Petri, President and CEO of DTi. “However, these advances have significantly increased the size, weight and complexity of wiring and cable assemblies. These all need wire and cable anti-chafe protection to help ensure electronic transmissions, protect data and preserve system integrity.”

The traditional MS21266 nylon grommet is molded as a straight, stiff element cut to length and bonded around penetrations and along edges using MEK solvent based adhesives. Installation is a multi-step, time-consuming, costly process. It’s estimated that 10% require in-process rework, mostly due to poor bonding and “egg-shaping” of the grommet.

DTi’s M22529/2 snaps onto the airframe in seconds with no VOC paste adhesive or cure time, saving 63% of the direct labor and material installation cost per grommet. This simple, fast, snap-on install without adhesive means that the costs for replacement and repair costs — significant elements for MRO’s — are just 6.5% of the same costs for the traditional nylon grommet.

“We also have a clear edge in performance as the M22529/2 has superior fit and dimensional stability,” said Petri. “The CRES steel substrate material makes our advanced grommet edging resistant to changes in temperature and moisture without degradation of its compression and retentive strength.”

The M22529/2 grommet with its military specification is classified as a “Standard Part” by the FAA so OEM’s and MRO’s can safely and easily switch to the M22529/2. In addition, DTi can help justify the switch by providing companies with its Life Cycle Cost Analysis tool.

“We know OEM’s and MRO’s must show a strong rationale when making changes so along with demonstrating our ease of use and best-in-class performance we also developed the LCC tool to show the enormous savings of switching to the M22529/2,” said Petri. “Our staff will work with the company’s team to develop an LCC analysis tailored to their unique specifications.”

DTi’s LCC model is designed as an adaptable framework where performance parameters and cost driver attributes can be customized to meet the company’s specific needs.

“We encourage OEM’s and MRO’s to meet with us at NBAA-BACE to review the research study and discuss how they might realize the benefits and enormous savings of switching to M22529/2,” concludes Petri.