

New Developments in EMI Shielding from Tenneco

Latest technologies combine EMI shielding with reduced weight and water repellence

SOUTHFIELD, Michigan, June 17, 2019 ... Tenneco's (NYSE:TEN) Powertrain division has enhanced its electromagnetic interference (EMI) shielding portfolio in response to the aviation market's demand. It will be showcased alongside highlights from Tenneco Powertrain's comprehensive range of systems protection products at the 2019 Paris Air Show, Hall 4, booth G41 from June 17-23.

"By optimizing the construction and arrangement of each element in the material, we have been able to drive down weight while maintaining exceptional shielding performance across both high and low frequencies," said Janice Maiden, Senior Vice President, Global Systems Protection, Tenneco Powertrain division. "We have also focused on maintaining water repellent properties, which minimizes the risk of icing or water ingress degrading system performance."

EMI shielding protects against the unintentional generation and reception of electromagnetic disturbances in a circuit or wiring harness. These disturbances can create a variety of unwanted effects, such as causing computer-controlled systems to power-up or -down. As the use of electronic controls and equipment continues to increase on aircrafts, there is a growing need to ensure that the electrical and electronic architecture is protected from EMI, usually by specially designed protective sleeving.


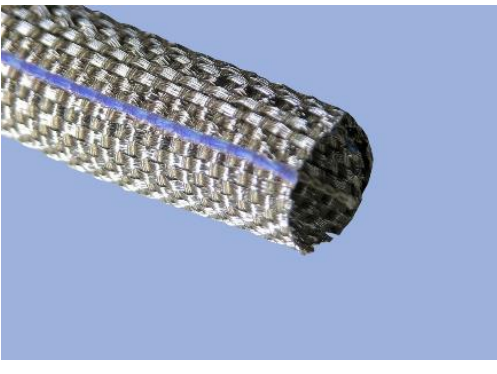
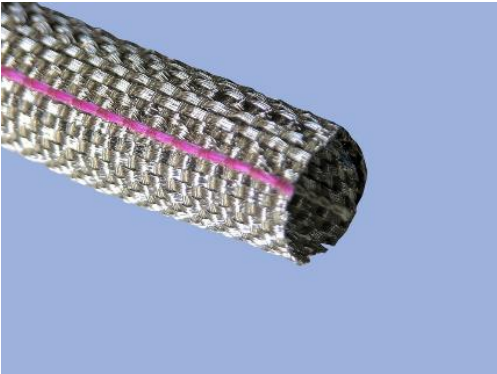
Tenneco's range of materials for effective EMI management combines EMI shielding with a number of other valuable properties. The composition and specification is tailored for specific applications and has been developed and refined over many years.

The most recent developments are the ROUNDIT® EMI XWS and NX EMI products with optimized, weight-saving wire filaments. The shields are all self-wrapping, so can be easily installed on wire harnesses, while allowing the protected assembly to be re-opened for inspection and maintenance. The sleeving can be installed during initial harness assembly or after complete systems are assembled, in the event that an EMI concern is detected and correction required. Their design offers an innovative solution to the protection of breakout areas and enables users to stock a limited range of sizes to cover a wide range of cable and

wire diameters. Thanks to their unique geometry and metal insertion, they are also easy to combine with existing solutions.

ROUNDIT® 2000 NX EMI provides mechanical protection and EMI shielding for wire and cable bundles. The outer layer, which supplies the abrasion resistance, is manufactured from PPS (polyphenylene sulphide) monofilaments and Nomex® fibers with a water repellent treatment meeting the latest industry standards and requirements. The inner layer is composed of nickel plated copper (Cu/Ni), which provides EMI insulation. The outer layer construction with a 100 percent covering ratio provides excellent cut-through and abrasion resistance. ROUNDIT 2000 NX EMI is also available with an internal layer of PTFE tape (polytetrafluorethylen), allowing wire harnesses to be protected from the inner metal layer.

IMAGES:

 A close-up photograph of a cylindrical, braided green mesh material, likely an EMI shield, against a light blue background.	<p>ROUNDIT® 2000 NX EMI © 2019 Tenneco Inc.</p>
 A close-up photograph of a cylindrical, braided mesh material with a blue stripe running along its length, against a light blue background.	<p>ROUNDIT® EMI C4 XWS © 2019 Tenneco Inc.</p>
 A close-up photograph of a cylindrical, braided mesh material with a pink stripe running along its length, against a light blue background.	<p>ROUNDIT® EMI C27 XWS © 2019 Tenneco Inc.</p>

About the new Tenneco – the future Powertrain Technology company

Following Tenneco's expected separation to form two new, independent companies, an Aftermarket and Ride Performance company (DRiV™) as well as a new Powertrain Technology company, the new Tenneco will be one of the world's largest pure-play powertrain companies serving OE markets worldwide with engineered solutions addressing fuel economy, power output, and criteria pollution requirements for gasoline, diesel and electrified powertrains. The new Tenneco would have 2018 pro-forma revenues of \$11.4 billion, serving light vehicle, commercial truck, off-highway and industrial markets.

Safe Harbor

This release contains forward-looking statements. These forward-looking statements include, among others, statements relating to our plans to separate into two independent public companies. Forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to materially differ from those described in the forward-looking statements, including the possibility that Tenneco may not complete the spin-off of the Aftermarket & Ride Performance business from the Powertrain Technology business (or achieve some or all of the anticipated benefits of such a spin-off); the possibility that the acquisition of Federal-Mogul or the separation may have an adverse impact on existing arrangements with Tenneco, including those related to transition, manufacturing and supply services and tax matters; the ability to retain and hire key personnel and maintain relationships with customers, suppliers or other business partners; the risk that the benefits of the acquisition of Federal-Mogul or the separation, including synergies, may not be fully realized or may take longer to realize than expected; the risk that the acquisition of Federal-Mogul or the separation may not advance Tenneco's business strategy; the risk that Tenneco may experience difficulty integrating all employees or operations; the potential diversion of Tenneco management's attention resulting from the separation; as well as the risk factors and cautionary statements included in Tenneco's periodic and current reports (Forms 10-K, 10-Q and 8-K) filed from time to time with the SEC. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results. Unless otherwise indicated, the forward-looking statements in this release are made as of the date of this communication, and, except as required by law, Tenneco does not undertake any obligation, and disclaims any obligation, to publicly disclose revisions or updates to any forward-looking statements. Additional information regarding these risk factors and uncertainties is detailed from time to time in the company's SEC filings, including but not limited to its annual report on Form 10-K for the year ended December 31, 2018.

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