



Bringing Power Safely To The People

Electrical safety mats, covers and drapes prevent electrical currents flowing from power lines to people. Without this safety equipment, electrical workers would be at risk in their daily work.

As an Australian top 100 company, electricity supplier Energex Limited adheres to the philosophy that employee safety is paramount.

“Other electrical safety authorities follow in Energex’s footsteps because it is proactive in employee safety and others adopt its philosophy,” says Victor Gandolfo, Sales and Marketing Manager, Trelleborg Engineered Systems Australia.

To supply electricity to 1.2 million residential, industrial and commercial customers in South East Queensland, Australia, Energex maintains bulk supply and distribution substations, transformers, power lines and cables. This means that its employees must work with live electricity at both low and high voltages. Without appropriate safety equipment, such as safety mats, electrical workers would risk electrocution when performing their everyday duties.



Trelleborg provides custom-made solutions for customers according to individual parameters.

“Trelleborg has developed custom-made electrical safety mats, covers and drapes that cover live electrical boards or overhead lines to protect the user from electrocution while working between lines or to insulate from the ground as a protective barrier,” says Gandolfo.

“The most important criterion is the mat’s ability to prevent electrical currents flowing from live lines to people.”

Products must pass the applicable standards. In Energex’s case, this includes registered standards in Australia/ New Zealand for low-voltage mats or the American Society for Testing and Materials (ASTM) International standards for high-voltage products.

“Energex required a high-voltage orange mat manufactured to match an existing mat for high-voltage overhead power line work,” says Gandolfo. As part of the customized solution, Trelleborg not only considers dimensions, thickness and cut, but also the rubber compound that forms the basis of the mat.

Queensland’s tropical climate and year-round harsh sunlight rapidly takes its toll on rubber. The right rubber compound is one of the key solutions that Trelleborg must deliver.



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“All electrical safety products are primarily made from a natural rubber blend. We develop compounds that will give the mat the desired flexibility and electrical performance,” says Gandolfo.

“In Queensland the amount of sunlight was the big issue. This means that the mats tend to have a shorter life because sun is very harsh on rubber material – it makes it crack,” he says. “To combat this, we are working with alternative rubber compounds focusing on this problem and strengthening patches on fold sections or high-impact areas on mats.”

Trelleborg’s mats were put to the test in the aftermath of Cyclone Larry in Northern Queensland in March 2006. The severe tropical cyclone disrupted electricity transmission, hampering relief and cleanup efforts. To aid in the speedy reconnection of electricity to the area, Energex crews, usually servicing South East Queensland, were sent to assist local crews.

“Trelleborg’s safety mats were so well received that local crews also wanted them,” says Gandolfo. “The most important aspect is that the mats we provide work and save lives, offering people a safe working environment.”

Safety based on local standards

Trelleborg Engineered Systems Australia’s largest customers are active in the power- generation and distribution industries, but its products are also used in the telecommunication industry. More recently, the customer base has expanded to include an increasing number of second-tier service contractors, such as domestic electricians. Its most popular product is the Low Voltage (LV) Safety Mat. Trelleborg provides custom-made solutions for customers according to individual parameters. It is the only Australian manufacturer of electrical safety matting products complying with Australian and international standards, including full testing and product certification, and its market share is approximately 30 percent.

Three Examples



LV Safety Matting is mainly used for standing on while working on live switchboards or any other equipment and prevents the possibility of electrocution.



LV Line Covers are also known as double-drop mats and are hung over overhead power lines to provide a safety barrier while workmen conduct maintenance or repairs on overhead wires.



UV Cable Covers are used as a protective sleeve between overhead lines and transformers. It



has been specifically designed to reduce power outages caused by wildlife and deadfall of tree foliage across live lines, reducing bush fires.

For more information on Trelleborg Engineered Systems,
Trelleborg Queensland Rubber:
www.trelleborg.com/queenslandrubber