



“Ladies and gentlemen, now we request your full attention as the flight attendants demonstrate the safety features of this aircraft.”



The safety demonstration is a well-known ritual familiar to all who have taken to the skies for their transportation needs.

Most items listed in the safety overview we frequently see in other areas of our lives or depicted on television like seat belts, life vests, and oxygen masks, but how much do you know about the inflatable evacuation slide stored safely out of sight?

Initial Take-Off

In the early days of aviation, aircrafts were relatively small and low to the ground, requiring a few large steps to deliver feet back to solid earth safely. But as the aviation industry grew, so did her planes and new safety considerations were prioritized.

The first aircraft evacuation slide was invented by James. F. Boyle Sr., Air Cruisers founder, after submitting his patent for an inflatable escape chute assembly in 1954.

Jack Grant of Qantas went on to further innovate the aircraft inflatable escape slide by inventing one that could also be used as a raft on the water in 1965.

Designing evacuation slides has grown more complex as performance standards and regulations have become stricter.

Absolute Altitude in Innovation

In the early 1960s, slides had to deploy in 25 seconds in normal weather conditions. Today’s escape slides

must deploy in 2-10 seconds, remain fully functional in temperatures ranging from -65 to 160 degrees Fahrenheit and unfurl in winds up to 25 knots (28.7 mph). The slides must also be able to provide safe and rapid evacuation at a rate of 70 evacuees/minute and without catastrophic erosion of the sliding lane.

In addition to extreme durability and strength, our coated materials for escape slides are designed to provide resistance to radiant heat, flammability, extreme temperatures, contaminant fluids, water proof and engineered to sustain inflation loads while maintaining a flat sliding surface.

Meeting Maintenance Requirements

Current regulations state that each evacuation slide and slide raft must be removed every 3 years for inspection by an authorized repair facility, and then a yearly inspection and overhaul once the slide is 15 years of age.

While it’s hopefully not a product you’ll ever see in action first-hand, it is crucial that escape slides are properly maintained so they can deploy and perform successfully.

“Trelleborg maintains its position as a **market leader** for coated fabrics in the aircraft industry by understanding the **unique challenges** of manufacturing coated materials that meet regulatory requirements,” says Kevin Maine, Aerospace Account Manager.

“We are proud to offer an extensive portfolio of coated materials for products in the commercial aerospace market that play an **integral role in saving lives**, including escape slides, life rafts, and life vests.”

For more information on Trelleborg’s range of coated material solutions for the Aerospace market, please visit www.TrelleborgECF.com.