

Technical Bulletin 32: Covermax® Jacket

Slingmax Twin-Path® slings are constructed of two main components – the K-Spec® high performance core yarn, and the Covermax bulked nylon jacket. From its introduction in 1990, it has been the goal of Slingmax to make Covermax the toughest, most abrasion resistant roundsling cover available. To achieve this, a program of continuous improvement, testing and innovation has been in place.

The benefits of the Covermax material include:

- Rifled Cover Technology, a patented feature of the Covermax material that works in conjunction with the K-Spec core yarn and the Slingmax roundsling machine. As the core yarn is run into the sling, it interacts with the weave of the jacket, causing the core yarns to twist into a bundle. This twisting helps to equalize the tension between the strands, leading to an average increase in strength of 17% and greatly improving the consistency of breaking strengths (Figure 1).

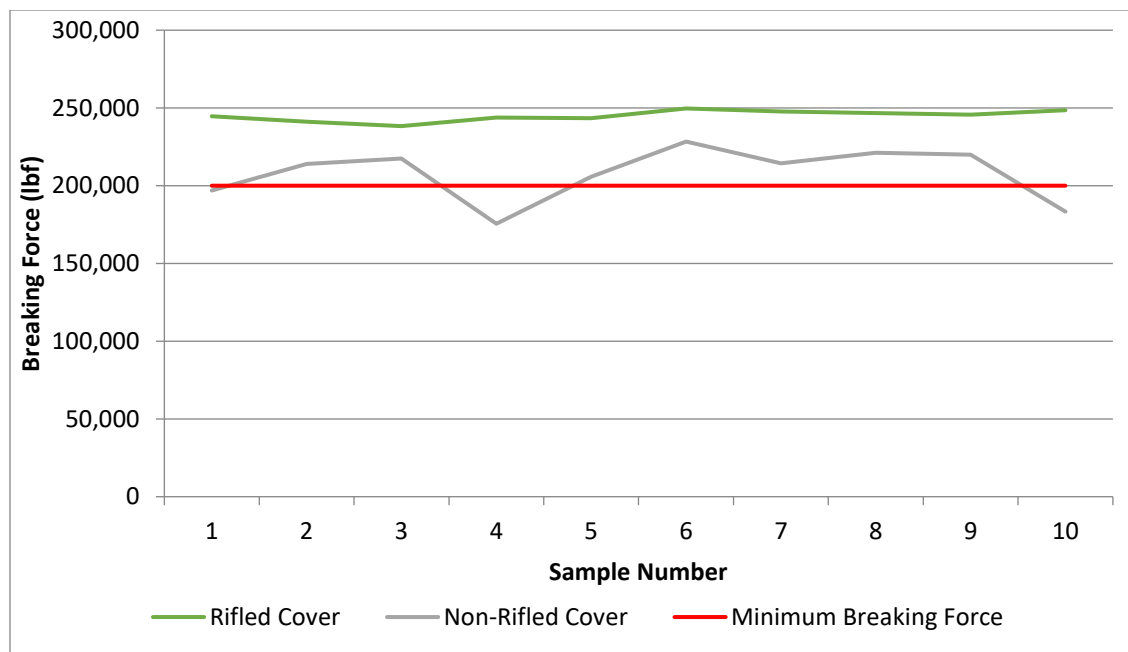


Figure 1 - Rifled Cover Break Tests

- Abrasion resistance performance superior to other roundsling covers on the market. Comparative laboratory testing summarized in Figure 2 shows that Covermax dramatically outlasts competitor's roundsling covers, lasting thousands of cycles while the competitors only last for hundreds.

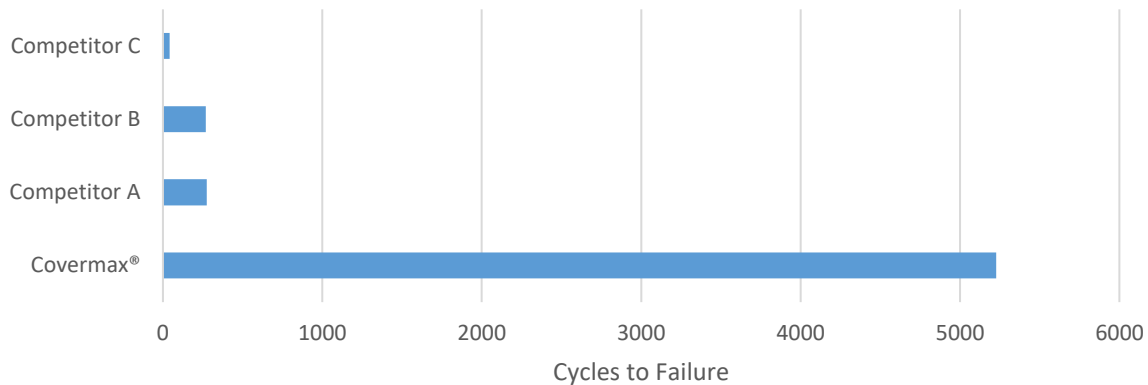


Figure 2- Abrasion Test Results

- Consistent quality that is defined and controlled throughout the entire Slingmax dealer system. A technical specification has been established by Slingmax headquarters and is issued to Covermax suppliers. In order to supply Covermax to any Slingmax dealer, a supplier must submit samples for testing and be approved by Slingmax.
- Superior protection from ultraviolet (UV) radiation. All synthetic fibers are degraded by UV radiation from exposure to sunlight. Some slings, like unjacketed braided ropes, are by their nature exposed to this damage constantly, with only modest protection from coatings. Roundslings have a degree of protection due to their cover, but not all covers provide the same level of protection. The combination of the dark color and tight weave of Covermax means that it blocks more UV than any other roundsling jacket on the market. Standard thin polyester cover material allows UV light to reach the load-bearing core yarns, leading to strength loss over time. Even worse is the misguided effort to manufacture roundslings with a see-through cover. In an attempt to make the load-bearing core yarns inspectable, some manufacturers have made roundslings using a transparent cover. This exposes the core yarn to the full damaging effect of UV radiation.

Additionally, a cover that is thin enough to be transparent cannot have good resistance to abrasion and other external damage. These types of covers also allow particles to pass through to the core yarn bundle, which lead to added internal abrasion.