

Company finds high temperature materials for hot products



The Problem/Need

Compass Wire Cloth is an industry leader in the production of wire mesh screens and high-performance edged screen products. Compass has relied upon a sole supplier for an expensive yet high-performing scrim edging material, but they needed new options to remain competitive. Compass needed to find new, low-cost scrim and scrim-adhesive systems that could offer the high temperature and abrasion-resistant performance required for existing and new energy sector applications.



Project Outcomes

- Explored a range of industries with similar textile needs (e.g. aerospace, fire fighting) and also sought new non-woven and adhesive materials.
- Identified and researched key fiber, textile, and adhesive manufacturers to identify candidate materials.
- Created a technology evaluation matrix to compare a dozen woven and non-woven edging scrim materials, and compatible adhesive options.
- Profiled the most suitable partners and recommended next steps.

Key Requirements

- Scrim and adhesive must remain stable and bonded in a continuous 500°F operating environment.
- Adhesive must bond to itself or to the wire screen with very high reliability.
- Must be cost competitive with the current scrim-adhesive system.
- Scrim material must be available commercially and in varying widths.
- Scrim-adhesive systems must work on in-house heat sealers.
- Must work in wet environments.



Project Impact

- As a result of the project, Compass:
- Evaluated and compared over six new scrim-adhesive systems in high temperature and abrasion tests.
 - Confirmed that their current woven scrim solution is the top performing material available on the market.
 - Developed and is patenting a new non-woven screen edging system.
 - Began launching the new high-temperature edged screen product into a high growth energy market.

“Finding material alternatives was a priority but we needed assistance to thoroughly investigate the best options and find new ones. We have tested several of the solutions found and have developed one of them into a really promising new product line.”

– Michael McGrath, Founder, Compass Wire Cloth