Enhancing Pallet Stability and Sustainability with Samson Pallet Stability

Client Profile

Industry: Construction - Slingshot Testing to EUMOS Standards and Recommendations using the Clients Existing Machinery and Film

The Challenge

The client approached SPS as a matter of urgency as they were having issues with damages of products. They were unable to ship any goods since implementing several changes concurrently to reduce single use plastics and energy consumption.

The client is a leading supplier of construction products with a multibillion turnover across the globe and is a very prestigious brand.

As part of a global push, the client needed to reduce single use plastics and reduce energy costs and consumption by 2030. The switch from gas heat shrink to stretchfilm would offer energy savings, as the cost of energy had increased threefold over the last few years.

The changes implemented on site was; replace their shrink machinery with brand new fully automatic stretchfilm lines, replace 200mu shrink hoods with 20mu recycled content stretchfilm, increase the recycled content in plastic tubs of product to100%.

Results from all these concurrent changes

The client was facing huge issues as no products were able to be shipped without damages, even on short journeys. The recycled content tubs had very high slip lids and a low stack rebate. The product inside was also liquid, which continued to move under acceleration and deceleration, for added instability. The insteps of the pallets were very large (Type C pallet configuration) so were proving difficult for the recycled content stretchfilm, and the tubs had less inherent strength, so any movement caused collapse on the pallet. This damage the side walls of the tub and the crack the lids. The cost of being unable to ship was incredible, as the tubs could not be reworked, so help was needed from the SPS team.

Samson Pallet Stability

Samson Nano

The Safe Solution and Recommendations

he SPS team conducted many Slingshot tests on over 15 different pallet types (weights, products, stack patterns and tub sizes). They tested each pallet from 0.1G until the point where the load was becoming damaged/ unsafe. Samples of the clients film were sent to SPS for replication on the SPS Autoline, and after multiple tests on each pallet configuration, a wrap pattern was achieved which could be implemented immediately onto the clients wrappers. The improvement was instant, meaning product could be shipped without damage. The machinery manufacturer visited SPS, and was able to transpose the final wrap pattern recommendations onto their machinery, on the customer site.

Client Feedback

Reducing single use plastics and spiralling energy costs were a priority. We also needed to embrace recycled content product as part of our Worldwide sustainability goals. This was a perfect storm of multiple changes together, but working with SPS ensured we could adapt and implement their advice quickly. Daily testing results, recommendations and updates from Julia and Dan were given to all stakeholders. Julia and Dan are so professional, and their knowledge of pallet stability is incredible.