

GLASSINSIGHT

Improving Performance In Production

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ask the expert...

PYROTHERM STAINLESS STEEL FABRICS DELIVER PROCESS ADVANTAGES FOR AUTOMOTIVE GLASS BENDING



Stainless steel fabrics are vital components used in the tempering and laminating process stages in the production of automotive safety glass. The quality of the stainless steel fabrics directly influences the quality of the glass as well as cost efficiency in production.

King's Metal Fiber Technologies Co., Ltd (King's) in Taichung, Taiwan specializes in the development and manufacturing of premium stainless steel fibers and products. Pyrotek is the official distribution agent for these products for automotive glass manufacturing in the Americas, marketed under the name Pyrotherm STS fabrics.

Q: What are stainless steel fabrics and what are they used for?

A: Stainless steel fabrics are soft and flexible textiles made from high quality stainless steel through an extensive and sophisticated transformation process. For the safety of drivers and passengers in vehicles, automobile companies set high quality requirements for their glass. To minimize defects on the glass such as scratches and distortion, tools used for the bending process and transportation of the glass in and around the furnace must be covered by a non-marking separation material which can resist the high temperatures of the furnace environment of 500–700°C (932–1292°F). Stainless steel fabric features both high heat-resistance and textile-like attributes; therefore, it is the ideal separation material for covering steel moulds, skeleton rings, quench rings and rollers.

Q: What is the available range of Pyrotherm stainless steel fabrics?

A: The Pyrotherm's product portfolio includes defect-free knitted cloth, knitted and braided sleeves, net tape, woven tape and rope, and non-woven felts. All product types are supplied in a wide variety of sizes and specifications to optimize efficiency and minimize waste. Pyrotek also offers customized solutions for unique and specific customer applications.

Q: How can Pyrotherm stainless steel fabrics improve production quality and reduce costs?

A: Pyrotherm stainless steel fabrics are uniquely processed to maximize their heat-resistant properties. As a result, the products have been tested and proven to outlast competitor products significantly. Moreover, Pyrotek and King's is dedicated to supporting customers with experienced and reliable technicians who can not only recommend the ideal product types for each specific application, but also work closely with customers to design and develop tailored products collaboratively for

achieving optimum performances.

Q: Can you quote any recent projects to illustrate the benefits?

A: Two recent customer case studies highlight the advantages of Pyrotherm stainless steel fabrics.

Case Study 1

An automotive glass plant in the USA, after switching to Pyrotherm stainless steel knitted cloths, experienced an increase of almost 60% in the number of glasses produced per cloth. The plant was able to maintain production for an extra 8-hour shift before performing a cloth change. Downtime involved in changing a worn cloth generates a significant cost for automotive glass plants.

Case Study 2

An automotive glass plant in Europe conducted two production tests to compare King's stainless steel knitted cloth types XHM 300 and XHM 500 with competitor products. The results showed an increase in production output of more than 50% for XHM 300 and 180% for XHM 500.

Experience

Pyrotherm is backed by a 33 year-old multi-national textile enterprise, Tex-Ray Industrial Co., King's parent, who has over 10 years of experience and expertise in developing and manufacturing stainless steel fabrics. This is reflected in the company's ISO 9001:2008 certification.

As the official distributor for the Americas, Pyrotek has worked closely on projects with King's for nearly 10 years (since 2002).

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Selection of Pyrotherm STS stainless steel fabric products