

TECNOSENS'

automotive and flat glass dimensional control solutions

Driven by its singular focus towards increasing productivity and production efficiency, TECNOSENS has consistently kept customer-centricity top of mind with its process monitoring sensor integration - all to advance industrial automation which has reliable products and solutions that are also developed in-house.





With over 20 years activity in the world of sensors and measurement systems, Tecnosens S.p.A has been able, from the outset, to look ahead whilst differentiating itself on the market by becoming a solution provider.

No simple distributor, the company is a true partner equipped with R&D that has extensive know-how in multiple measurement technologies and can develop complete solutions for the dimensional control of glass for automotive.

EXPERIENCE, KNOW-HOW AND SYNERGY WITH CUSTOMERS

Research and innovation are both keywords for Tecnosens. Here collaboration and support are at the centre of all activity in both Sales and R&D De-

partments. Joint efforts between Tecnosens and its customers affords the company the competence to create and propose the kind of dedicated solutions that can capably meet customer needs without ever losing sight of current market requirements.

Concerning quality control systems, its automation division has been a particular point of reference within the automotive glass world for over twenty years now - the main goal being to ensure both productivity efficiency and production optimization. Here's why, to date, Tecnosens has consolidated partnerships with leading automation manufacturers - particularly within the glass sector, for which it is a specialized integrator.

AUTOMOTIVE GLASS INSPECTION

Tecnosens operates expertly within the automotive field by its inspection systems.

Caliber, the company's system for measuring the curvature of the glass, makes the measurement of shape, curvature and perimeter of glass all possible. Here, examples of application fields in which the system is used are auto glass, safety glass, industrial vehicle glass and special glass. Caliber uses LVDT transducer digital contact technology, by which it's possible to take a great quality leap in terms of production - drastically reducing inspection times whilst offering complete measurement traceability for each piece. As for the curvature measure of car windows, Tecnosens offers two different versions, namely "laboratory" and "industrial", as manually-usable

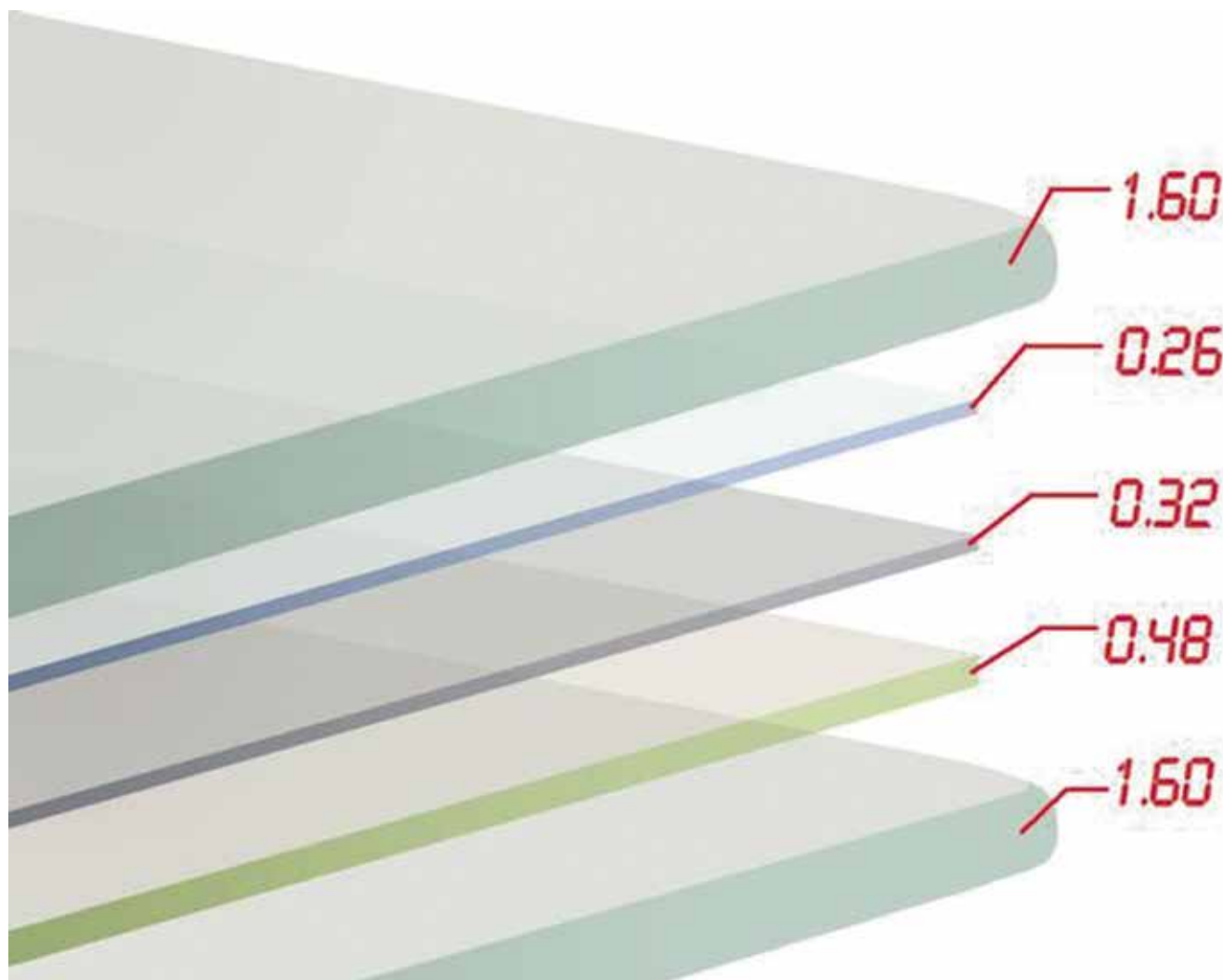
for measuring either within a laboratory or directly in an automatic production line. The advantage of the system is its versatility, given that it's not only suitable for large producers but also where demand is limited. High measuring speed, full traceability and easy configuration are all reasons that motivate so many customers to choose these systems.

OPTICAL SENSOR FOR THICKNESS MEASUREMENT ON LAMINATED GLASS

Used in many special applications, glass is among the most versatile and eco-friendly of materials. Automotive glass is often jointly

laminated with other materials, which gives special properties to the final product, including UV filtering, noise reduction and high strength. Experience already gained with curved glass has prompted Tecnosens to develop new multi-layer instruments which, by way of confocal and interferometric optical technologies, quickly and accurately measure the layers that comprise a laminated glass - including plastic films, **PVB** and **EVA** ones between the layers. These Thickness measurement systems allow for saving and analysis of the acquired data via statistical methods, thereby highlight-





ing the measurement trend as well as the points where the tolerances are exceeded. Such tools are used in various fields, including those of plastic film production, laminated glass and mobile phone glass.

This innovative multi-layer technology can also be used to measure the thickness of plastic film layers (PVB, EVA) prior to their heating for lamination. The sensor allows for measurement of the film thickness even where the material is not entirely transparent. Some films, such as PVB and EVA,

are typically expensive materials. Consequently, keeping their thickness monitored during the process allows for both optimized use of the material as well as cost reduction.

UNLIMITED TRAINING AND SUPPORT

In today's market, which requires an ever-widening choice of solutions -above all specialized- it's important to examine the proposed added value. And service is as fundamental as the product itself. Here Tecnosens accompanies the

customer step-by-step - not only by proposing optimum technology, but in all after-sales and support stages as well. Training plays a fundamental role in capably leveraging and best capitalizing upon the solutions on offer. It's also crucial for the customer to gain maximum benefit from them. However, good training is hardly enough, which is why Tecnosens remains close to the customer with constant support - worldwide too. Not products alone but also collaboration to achieve a shared goal built upon a

direct relationship with the customer. Such is the direction the company has always sought to follow - investing in a complete and structured service so as to offer added value to its customers.

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