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## **Trispel GmbH Is Here to Help**



Tactile information system for better orientation in the German ICE 4

ocal and long-distance public transport vehicles are used by millions of passengers on a daily basis – they're an essential contribution to a climatefriendly and sustainable mobility concept.

The users themselves are just as diverse as the exciting and varied array of different mobility offerings available.

For over 38 years, Trispel GmbH in

Celle, Germany has been outfitting railway vehicles and buses with accessible guidance systems to enable passengers with physical impairments to find their way in a variety of different vehicle environments. Reason enough to take a behind-the-scenes look at the special topic of accessibility on trains and buses.

As inconspicuous as pictograms and signs may be at first glance, they're crucially important in the organisation of smooth passenger service. During peak periods in particular, passengers have to be

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able to orient themselves in vehicles as intuitively as possible and be guided as efficiently as possible. Whether trying to locate a reserved seat, the restaurant car or the toilet, pictograms aid passengers in finding their way around vehicles in just about every day-to-day situation.

In addition to day-to-day organisational operations, pictograms also play a crucial role in safety when emergencies occur. They identify escape & emergency routes and the locations of fire extinguishers & first-aid stations



and also point out options for communicating with passenger staff. As a result, these initially inconspicuous pictograms are classified as safety-related components of a vehicle.

Thanks to standardised imagery, relevant passenger information can be understood regardless of a person's native language or cultural origin. A crucial aspect at a time when society is becoming increasingly international. But how do you guide customers who are unable to take in visual information? Tactile guidance systems and pictograms provide the solution for enabling passengers with visual impairments to make use of mobility offerings independently.

In public transport, tactile guidance systems are a significant contribution to the integration of visually impaired people. That's why the German Federal Railway Authority in Bonn developed their own EC certificate for these components. TSI PRM (EU) 1300/2014 governs the technical requirements of pictograms which can be perceived by people with visual impairments.

"Pictograms and passenger guidance systems are our passion. Designing and producing them in such a way that they can be understood by as many passengers as possible is our social responsibility," noted Johannes Wenzel, Managing Director of Trispel GmbH.

In close co-operation with visual impairment associations and the responsible specialist departments, it was possible with the Trifol<sup>®</sup> SBG product range to develop a



Handrail equipped with tactile number and braille © Deutsche Bahn AG / Oliver Lang

technical solution which includes the relevant passenger information both as a visually attractive image motif and as transparent tactile information. The essential image information can be presented haptically in three dimensions and supplemented with written information in braille. The manufactured pictograms and signs are developed for long-term use in public transport vehicles and are resistant to common cleaning agents thanks to their special surface finish.

Thanks to the innovative production technology used, high setup costs for stamping and embossing tools are no longer an issue. Even individual small batches can be created cost-effectively in this way. If necessary, the self-adhesive pictograms can be provided with a high-strength adhesive for lowenergy surfaces.

For determining the most suitable product version for each intended use, Trispel GmbH has its own laboratory for material analysis. *"Our company has presented ideal options for analysing sample components with regard to their*  adhesive properties. A precise product recommendation can then be made. This is a free service that is greatly appreciated by our customers around the globe. When furnishing large volumes, it allows us, for example, to rule out the risk of chemical incompatibility between the adhesive and the surface," commented Dirk Dettlaff, Head of Sales at Trispel GmbH.

Once the right product has been determined, it is time for graphical implementation. The staff at the graphics department have been specially trained in typesetting braille text. The desired pictograms are then created based on the template of a technical drawing, or as a completely new design, if desired. For complex translation tasks, we co-operate with local visual impairment associations.

Once production is complete, the pictograms are either applied in the vehicles by the Trispel GmbH installation team or delivered to the customer.

As a long-time customer of Trispel GmbH, Deutsche Bahn AG recognised the various needs of its





users years ago and implemented an accessible guidance system in its vehicles. If you take a look at the latest ICE models, for example, you'll see that the relevant passenger information isn't just conveyed

graphically. After entering the vehicles, passengers are met on three levels - imagery, tactile writing and braille - and informed of the current location and the various directions. Individual seats are also outfitted with tactile seat numbers, controls are identified in the toilet facilities and location information in braille is found on the handrails.

The image portfolio of Trispel GmbH currently includes more than 4,000 different pictograms for blind and otherwise visually impaired people, and the number is growing every day.

Though the Trifol<sup>®</sup> SBG product range has already been established on the market for many years, the development department at

Trispel GmbH continues to work continually on further optimising the company's product portfolio. The latest development in the field of pictograms suitable for people with visual impairments are images where transparent braille text has been replaced with colour or fluorescent text. As a result, any RGB value can be represented as a colour shade. This is bringing tactile information and design even closer together.

## **Dirk Dettlaff** info@trispel.de +49514198660 www.trispel.de





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