

Armacell at the Innotrans

Armaflex Rail SD made by Armacell: The first flexible closed-cell insulation material with built-in fire protection for railway vehicles (hall 8.2, stand 1132)

Greater safety in a fire (Hazard Level 2 according to EN 45545); reliable condensation control on refrigerant pipework and air ducts

Münster / Berlin, 15 September 2012 – **Première at the Innotrans: with Armaflex Rail SD Armacell presents the first flexible closed-cell insulation material with integrated fire protection for the rail vehicle construction industry. The completely new synthetic rubber achieves HL 2 according to the new European standard EN 45545-2, a hazard level previously unattained with flexible insulation materials. The highly flexible elastomeric foam has very good fire properties and extremely low smoke density. Using Armaflex Rail SD on refrigerant pipework and air-ducts makes an important contribution to the high level of fire safety in rail vehicles. The closed-cell insulation material with anti-microbial Microban® technology protects pipes against energy losses and condensation. Because it is so flexible, the material is unbeatably fast and easy to install.**

Integrated fire protection

When railway vehicles are planned and constructed, the safety of passengers and staff is the highest priority. The level of safety has been increased successively over the past years and today all materials used must fulfil the highest fire protection requirements. With the introduction of EN 45545-2 (Railway applications - Fire protection on railway vehicles. Part 2: Requirements for fire behaviour of materials and components), which will come into force at the beginning of 2013, the requirements have been further tightened and standardized throughout Europe. The new Armacell insulation material Armaflex Rail SD already meets these demands. The product, which has been specially developed for use in rail vehicles, achieves HL 2. It displays excellent fire behaviour and extremely low smoke development (smoke density). The smoke development of Armaflex Rail SD is 10 times lower than that of a standard elastomeric product. The insulation material is self-extinguishing, does not propagate fire or produce burning droplets. With Armaflex Rail SD Armacell provides the first highly flexible closed-cell insulation material for installation in cold applications which also meets the increased fire protection requirements of rail vehicle construction.

Integrated vapour barrier

Because it is a closed-cell insulation material with low thermal conductivity and high resistance to water vapour diffusion, Armaflex Rail SD provides installations with reliable long-term protection against energy losses and condensation. As is the case with all Armaflex products,

Armaflex Rail SD has a 'built-in' vapour barrier. Unlike traditional insulation materials which need to be protected against moisture penetration by a separate vapour barrier, in Armaflex the resistance to water vapour diffusion is built up throughout the entire insulation thickness. This not only means much higher reliability – the diffusion barriers of open-cell insulation materials usually consist of delicate aluminium foils which are easily damaged on the building site – but also leads to a substantial reduction in installation costs. Armaflex Rail SD ensures the reliable and long-term prevention of condensation processes which can, in the worst case, lead to considerable follow-up costs. The Microban® technology offers additional protection against harmful microbes such as bacteria, mould and mildew. The antimicrobial additives are built into the insulation material during the manufacturing process and therefore cannot wash or wear off.

Unrivalled ease of installation

Armaflex Rail SD is available as a complete range of tubes, sheets, self-adhesive sheets and tapes in the common insulation thicknesses. A great advantage of the synthetic rubber, which becomes particularly apparent in the tight installation situations in rail vehicle construction, is the high flexibility of the material. The homogenous, three-dimensionally linked structure of the elastomeric insulation material allows the sheets to be cut neatly without the release of dust or fibre particles which could pose a health threat if breathed in. The high flexibility of the material allows it to be fitted simply even on complexly-shaped installations. The application time can be further reduced by using self-adhesive sheets.

Armacell is a manufacturer of engineered foams and the world leader in the market for flexible technical insulation materials. In the financial year 2011, the company had a gross annual turnover of around 448 million euros. The group of companies has approximately 2,500 employees and 19 factories in 13 countries. It is headquartered in Münster, Germany. Apart from ARMAFLEX, the leading brand in the field of flexible technical insulation, the company also produces thermoplastic insulation materials, covering systems, fire protection and noise control products, special foams for a multitude of industrial applications and foam cores which are used as composite materials. Further information on the company can be found at www.armacell.com.

Caption: Armaflex Rail SD brings fire protection to technical insulation in railways vehicles
(Photo: Armacell)