Armaflex Ultima: Low smoke density for greater fire safety

- New safety standard in technical insulation
- Complete range of low-smoke products (Euroclass B/BL-s1, d0)
- Armaflex Ultima system family meets requirements for sustainable construction

Münster, 13 July 2016 – With Armaflex Ultima Armacell has set a new safety standard in technical insulation. Based on the patented Armaprene technology, Armaflex Ultima is the first flexible technical insulation material in the world with fire class B/BL-s1,d0, thus providing unsurpassed safety in a fire. The market leader has further improved its recipe and now adds tubes and sheets in an insulation thickness of 32 mm and a B-s1, d0 sheet to its range. To ensure that the new foam is installed reliably, Armacell provides specially formulated adhesives. For the increasing requirements of sustainable construction Armacell now presents a solvent-free cleaner.

Minimal smoke density is crucial for people’s safety in a fire

Armaflex Ultima makes an important contribution to the fire safety in buildings: in a fire it is not usually the flames that kill, but the smoke. 95 % of fire fatalities occur due to smoke inhalation. Low smoke density can be a matter of life and death for those trapped. When a fire breaks out people often only have a few minutes to escape, because just three breaths of highly toxic fire smoke can be lethal. It is crucial that victims and fire-fighters find escape routes quickly. The European fire classification takes this fact into account and when assessing the fire behaviour of building products not only tests the flammability, but also the smoke density and the production of burning droplets. Legislators in many European countries have recognized that smoke poses a much higher hazard potential than the fire itself and have tightened the requirements regarding the smoke development of construction products in their building regulations.

New safety standard in technical insulation

With the innovative, patented Armaprene technology Armacell has been able to resolve the conflict of objectives between high flame resistance and minimal smoke development. Armaflex Ultima is the first elastomeric product in the market to achieve the fire class B/BL-s1,d0. In comparison to a standard product, the flame-resistant insulation material exhibits 10 times less smoke development. The first flexible technical insulation material with extremely low smoke density is now available as a complete B/BL-s1,d0 range. As the relevant...
limit values for fire behaviour are much lower for sheet material than for tubes, Armacell could previously only offer a B-s2,d0 sheet. Now the company also presents an insulation sheet which achieves B-s1,d0 in the European fire test. The covered material is more resistant to mechanical impact than traditional elastomeric products.

For insulating pipes with large outer diameters (> 89 mm ≤ 300 mm) Armacell provides “open tubes” – non-covered, slit tubes which also achieve fire class B1-s1,d0. A new addition to the range are tubes and sheets in an insulation thickness of 32 mm. Apart from standard and self-adhesive tubes and sheets, Armacell provides an Ultima version of the tried-and-tested Armafix pipe support. The system solution for hanging pipes in cold applications is now manufactured with a load-bearing segment made of recycled PET.

The future belongs to sustainable construction
Armaflex Ultima is not only the safest elastomeric product on the market with regard to preventive fire protection, it also offers the highest safety in ecological and health terms. Today Armacell is the only manufacturer of flexible technical insulation materials to publish environmental product declarations based on an independent life cycle assessment (LCA). Environmental product declarations (EPDs) are becoming more and more important in the construction industry: they provide a transparent, independent and reproducible analysis of the environmental impacts of construction products and give detailed information with sound data and figures. As a “sustainability passport” EPDs form the basis for designing green buildings in accordance with certification schemes such as LEED, BREEAM, HQE or DGNB. So the insulation manufacturer creates a high degree of transparency and provides architects, specifiers and those inviting tenders with reliable information for designing sustainable building projects. At the same time, the EPDs spur the company on to continuously improve the environmental friendliness of its products. Due to the development of completely new ablative protective additives Armaflex Ultima achieves the highest fire classifications without brominated flame retardants. Armaflex Ultima is also free of PVC. When developing its products Armacell applies much lower limit values for chemicals than legally required. Furthermore, the company tests materials to ensure that they pose no threat to people’s health or the environment. Armaflex Ultima fulfils the strict requirements of the Swedish BASTA, an independent assessment system for the environmental impacts of construction products, and is listed by both Byggvarubedömningen (BVB), the Swedish institute for assessing the sustainability of construction materials, and the Swiss Minergie-Eco label.
Solvent-free accessories for a sustainable insulation system

For installing Armaflex Ultima a special range of adhesives has been developed. Armacell not only offers the classic Armaflex Ultima 700 adhesive for a wide temperature range and Armaflex Ultima RS850, a gel-like, high-performance adhesive for clean, non-drip application, but is also the first manufacturer of elastomeric insulation materials to provide a solvent-free product. Armaflex Ultima SF990 meets the higher requirements of green building schemes regarding environmental and health aspects of the building products used. The adhesive has recently been recognized by the Swiss Minergie-Eco assessment system as being “very well-suited” (1st priority in accordance with ECO-BKP). A completely new addition to the range of accessories is a solvent-free cleaner: the Armaflex SF cleaner can be used to clean soiled surfaces of technical installations as well as the surface of insulation materials, thus ensuring perfect adhesion. The cleaner is supplied in a practical spray bottle so that it can be applied sparingly and precisely.

About Armacell

Armacell is a world leader in flexible insulation foams for the equipment insulation market and also a leading provider of engineered foams. In 2015, the company with currently approx. 2,800 employees and 23 production plants in 16 countries generated net sales of EUR 540.2 million.

In addition to ARMAFLEX, the world’s leading brand for flexible technical insulation, Armacell offers thermoplastic insulation materials, covering systems, fire protection and noise control solutions as well as special foams for a multitude of industrial applications. In recent years, Armacell has developed new insulation systems for the oil and gas market, core foams for composite materials, and low-smoke products that have set new standards in the industry.

Armacell’s products make a significant contribution to global energy efficiency.

Further information on Armacell can be found at www.armacell.com or www.armacell.eu.

Captions:

(1) Armaflex Ultima: the first flexible technical insulation material with extremely low smoke density for greater safety in a fire (Illustration: Armacell)

(2) New safety standard in technical insulation: Armacell completes the Armaflex Ultima range (Euroclass B1,s1,d0) (Photo: Armacell)