

## CLEANER INDOOR AIR QUALITY FOR OPERATIONAL RELIABILITY

# ArmaFlex® Pro

The preferred dust- and fibre-free insulation for cleaner indoor air quality and reliable condensation control

- // Fibre-free insulation for cleaner indoor air quality an important criteria in mission-critical environments where dust cannot be tolerated
- // Reliable condensation control performance in facilities that operate continuously, such as data centres, server rooms and hospitals
- // Meets criteria of Singapore Civil Defence Force for construction material containing plastic for wall and ceiling material / finishes
- // Active antimicrobial protection for reliable resistance against mould and bacteria













### **TECHNICAL DATA - ARMAFLEX PRO**

| Brief description                        | Highly-flexible, closed-cell insulation material with high water vapour diffusion resistance and low thermal conductivity. ArmaFlex Pro also meets the Singapore Fire Code requirement for wall and ceiling material/finishes.  |                                  |        |        |  |                          |  |  |  |  |
|--|---|----------------------------------|--------|--------|--|--------------------------|--|--|--|--|
| Material type                            | Elastomeric foam based on synthetic rubber (nitrile butadiene), with reinforced aluminum foil facing.   |                                  |        |        |  |                          |  |  |  |  |
| Colour                                   | Black foam with silver facing.  |                                  |        |        |  |                          |  |  |  |  |
| Special feature                          | Aluminium foil surface with bright silver finish.   |                                  |        |        |  |                          |  |  |  |  |
| Product range                            | Sheets with 13mm, 19mm and 25mm insulation thickness.   |                                  |        |        |  |                          |  |  |  |  |
| Applications                             | Installed in data centres and rooms that operate 24 hours daily to prevent condensation and enable energy efficiency through insulation.  |                                  |        |        |  |                          |  |  |  |  |
| Installation                             | Both the concrete surface and the insulation material should be clean and dry for optimal adhesion. If required, wipe both surfaces with a solvent to ensure an oil-free surface. Care should be taken that the cement surface does not soak up too much adhesive as the surface could dry too quickly and lose its adhesiveness. Application of a bitumen-free prime coat is advised. Install ArmaFlex insulation material according to the recommendations detailed in the latest ArmaFlex application manual. This installation advice also applies to application of ArmaFlex on masonry. |                                  |        |        |  |                          |  |  |  |  |
| Remark                                   | Due to the nature of the elastomeric foam product, shrinkage can happen due to differences in temperature and result in some wrinkling on the surface. This is normal and has no impact on product performance.   |                                  |        |        |  |                          |  |  |  |  |
| Property                                 | Value/Assessment Standard/Test met  |                                  |        |        |  |                          |  |  |  |  |
| Temperature range                        |   |                                  |        |        |  |                          |  |  |  |  |
| Service temperature                      | Range   | Minimum [°C]                     |        |        | Maximum [°C]                                     | _                        |  |  |  |  |
|  | Full range  | -50                              |        |        | +85  | _                        |  |  |  |  |
|  | Remarks   | Contact Armacell for application |        |        | ns beyond recommended service temperature range. |                          |  |  |  |  |
| Thermal conductivity                     |   |                                  |        |        |  |                          |  |  |  |  |
| Declared thermal conductivity            | $\theta_{m}$  | 0 °C                             | +23 °C | +40 °C |  | ASTM C518                |  |  |  |  |
|  | $\lambda_d \leq [W/(m \cdot K)]$  | 0.034                            | 0.036  | 0.039  |  |                          |  |  |  |  |
| Resistance to water vapour               |   |                                  |        |        |  |                          |  |  |  |  |
| Water vapour diffusion resistance factor | µ ≥ 10,000  |                                  |        |        |  | EN 12086                 |  |  |  |  |
| Fire performance                         |   |                                  |        |        |  |                          |  |  |  |  |
| Surface spread of flame                  | Class 1   |                                  |        |        |  | BS 476 Part 7            |  |  |  |  |
| Fire propagation for products            | Class 0   | BS 476 Part 6                    |        |        |  |                          |  |  |  |  |
| Smoke generation and toxicity            | CIT < 0.75<br>VOF <sub>4</sub> < 300 min  |                                  |        |        |  | EN 45545-2<br>ISO 5659-2 |  |  |  |  |

All data and technical information are based on results achieved under typical application conditions. Recipients of this information should, in their own interest and responsibility, clarify with our Technical department in due time whether or not the data and information apply to the intended application area..

#### Sheet - precovered

| Insulation<br>thickness<br>[mm] | 1.20m width  |            |                         |                         |  |  |
|---------------------------------|--------------|------------|-------------------------|-------------------------|--|--|
|                                 | Item         | Length [m] | Carton<br>content [pcs] | Carton<br>content [sqm] |  |  |
| 13                              | ARO-13120/AL | 2.00       | 22                      | 52.8                    |  |  |
| 19                              | AR0-19120/AL | 2.00       | 16                      | 38.4                    |  |  |
| 25                              | AR0-25120/AL | 2.00       | 12                      | 28.8                    |  |  |

#### Sheet - precovered self-adhesive

| Insulation        | 1.20m width    |            |                         |                         |  |  |
|-------------------|----------------|------------|-------------------------|-------------------------|--|--|
| thickness<br>[mm] | Item           | Length [m] | Carton<br>content [pcs] | Carton<br>content [sqm] |  |  |
| 13                | ARO-13120/A-AL | 2.0        | 22                      | 52.8                    |  |  |
| 19                | ARO-19120/A-AL | 2.00       | 16                      | 38.4                    |  |  |
| 25                | AR0-25120/A-AL | 2.00       | 12                      | 28.8                    |  |  |

All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. Despite taking every precaution to ensure that said data and technical information are up to date, Armacell does not make any representation or warranty, express or implied, as to the accuracy, content or completeness of said data and technical information. Armacell also does not assume any liability towards any person resulting from the use of said data or technical information. Armacell reserves the right to revoke, modify or amend this document at any moment. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. This document does not constitute nor is part of a legal offer or contract. By ordering/receiving product you accept the Armacell General Terms and

At Armacell, your trust means everything to us, so we want to let you know your rights and make it easier for you to understand what information we collect and why we collect it. If you would like to find out about our processing of data, please visit our Data Protection Policy

© Armacell, 2021. All rights reserved. Trademarks followed by ® or ™ are trademarks of the Armacell Group

00455 | ArmaFlex Pro | ArmaFlex | ProductDS | 032021 | en-SG

### **ABOUT ARMACELL**

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With 3,200 employees and 27 production plants in 19 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

