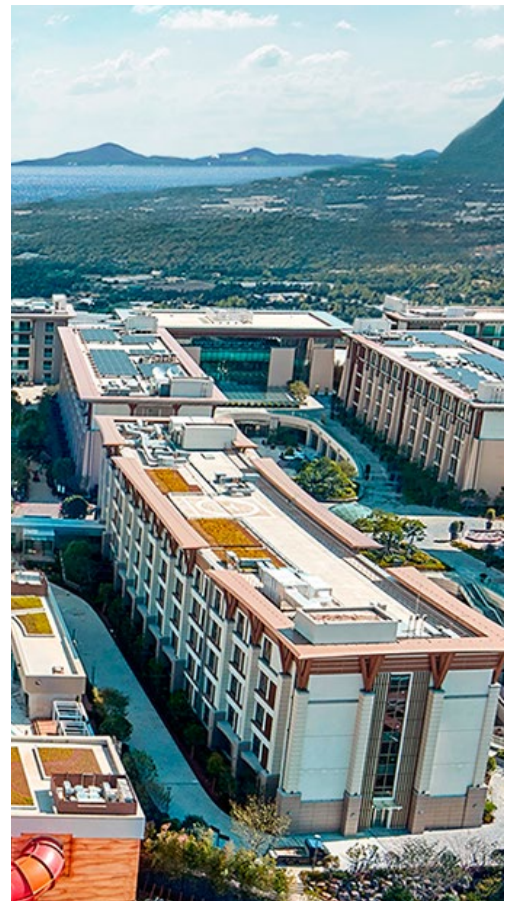


CASE STUDY

# Jeju Shinhwa World

Discover how Armacell's technical insulation solutions provide reliable condensation control and contribute towards long-term energy efficiency in South Korea's exciting world-class integrated resort. **Armacell in action.**

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 **armacell**<sup>®</sup>  
ArmaFlex<sup>®</sup>

## RELIABLE CONDENSATION CONTROL AND LONG-TERM ENERGY EFFICIENCY

86,000 m  
and 26,000 m<sup>2</sup>  
of ArmaFlex Class 1  
was installed



Jeju is a popular tourist attraction, and the only island in the world to be awarded the “Triple Crown” by UNESCO - Biosphere Reserve in 2002, World Natural Heritage in 2007 and Global Geopark in 2010. In 2019, the South Korean government announced plans to invest US\$150 million to enhance Jeju as a MICE\* capital. Jeju Shinhwa World is the first of its kind on the island, comprised of four premium hotels - including Marriott Resort and luxury condominiums to offer more than 2,000 guest rooms, a theme park, an adventure water park, a casino, a convention centre as well as retail space.

Located on Jeju island in South Korea, Jeju Shinhwa World is an exciting travel destination that spans a land area of about 2.5 million square metres and cost about US\$2.5 billion in development. The project opened progressively from the beginning of 2017 and the second phase of construction has commenced. Jeju is a popular tourist destination and with further plans to position the island as a MICE\* capital, Jeju Shinhwa World is at the centre of this development, and expectations - as well as energy demands - on a project of this magnitude is very high.

Heating, ventilation and air-conditioning (HVAC) systems play a central role in supporting the comfort and safety of indoor environments. It pushes air through ducts that run through walls, ceilings and floors to circulate air, while chilled water pipe systems help to moderate the temperature conditions. Plus, it can either help to defend against or contribute to indoor air quality. **The right insulation material for an air-handling system must resist moisture while ensuring that the air passing through it remains mould-, dust- and fibre-free.** Conventional materials could absorb moisture and potentially support growth of mould and mildew or particulate fibres into the indoor air, significantly degrading the indoor environment.

Insulation of ducting and piping systems is one of the easiest and most cost-effective means of saving energy. Engineers for the project knew that flexible elastomeric foam insulation was the ideal material for HVAC applications, trusting it to provide reliable condensation control and support for long-term energy efficiency. It was also important for them that the material used in this project met with the Korean Standards (KS) - a national standard deliberated by the Industrial Standardization Council in accordance with the Industrial Standardization Law of the country. Armacell’s representatives regularly met with project stakeholders to provide technical advice, including identifying the right insulation thickness for different applications of varying operating conditions. They also proposed the use of complementary accessories, such as ArmaFlex 850 adhesive and tapes to further enhance operational reliability and aesthetics. **A total of 86,000 metres of ArmaFlex Class 1 tube insulation and 26,000 square metres of ArmaFlex Class 1 sheet insulation was supplied to this prestigious project.**

**Project:** Jeju Shinhwa World  
**Location:** Seogwipo City, Jeju Island (South Korea)  
**Developer:** Landing Jeju Development Co., Ltd.  
**Construction Manager:** HanmiGlobal Co., Ltd. and Hanil Mech.Elec. Consultants  
**Contractor:** Hyundai Engineering and Construction and Daelim Industrial

\*MICE - Meetings, incentives, conferences and exhibitions.

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## ABOUT ARMACELL

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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 3,135 employees and 24 production plants in 16 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.

For more information, please visit:  
[www.armacell.com](http://www.armacell.com)

