

ABOUT US

Armacell is the inventor of flexible elastomeric foams for equipment insulation. We develop innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for our customers. Day in, day out, our products make a significant difference around the world. As a multi-material and multi-product company, we operate two main businesses: Advanced Insulation and Engineered Foams. Our product focus is on insulation materials enhancing the energy efficiency of technical equipment, high-performance foams for sophisticated and lightweight applications, recycled PET products and next-generation aerogel technology.

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WHAT MAKES

Sound foundations make a building strong. That's true of Armacell too. Despite multiple challenges, we performed strongly in 2023. Our strengths continue to be our resilient business model, our people and the insulation solutions for our customers.

STRONG

EFICIENCY

Energy efficiency is a key element in Armacell's DNA. In today's ever-more energy-conscious world, our products and solutions help reduce our customers' energy consumption – effectively and efficiently. And in this way, they also contribute to mitigating the impact of climate change.

Armacell's raison d'être is enhancing energy efficiency, enabling energy savings and providing long-lasting sustainability-enhancing solutions to meet present and future needs. Across the globe, the growing energy consciousness and increasing number of government policies aimed at saving energy are driving the demand for high-performing insulation solutions. After all, insulation materials are seen as the most efficient means to this end. Since technical equipment is one of the leading sources of energy losses worldwide, its effective insulation is a critical energy-saving opportunity to reduce global greenhouse gas emissions. As a result, our insulation products are gaining a strong foothold in a highly diverse range of end markets.

Energy-efficient district heating

The highly insulated underground thermal piping networks that transmit steam or hot water to heat or cool multiple buildings make a crucial contribution to more economical energy management. At Armacell Austria and Armacell Serbia we manufacture the pre-insulated pipes that are one of the technical prerequisites for such district heating

systems. These pipes minimise energy losses and help our customers and the occupants of buildings connected to a district heating network to significantly reduce their consumption of fossil fuels in particular.

Heightened industrial awareness

In 2023, sufficient and secure supplies of gas and oil, the two most common fuels used in the manufacturing industry, were impacted by ongoing geopolitical tensions. They resulted in higher energy prices which, coupled with sustainability concerns, drove energy efficiency initiatives by manufacturing companies across the globe. Our second-largest segment, Industrial insulation, offers energy-saving products in sectors such as manufacturing, pharmaceuticals, power generation, packaging, logistics and electrical systems.



CORPORATE

Our worldwide operations are steered from the Group headquarters in Luxembourg, where strategically critical corporate functions are located.



AEROGEL

ArmaGel®, our aerogel-based insulation technology, has opened up new application areas by extending our operational temperature range from -196°C to +650°C.



ELASTOMERIC

70 years ago, we invented flexible elastomeric foams (FEF) and have pioneered their use in industrial, commercial and residential applications ever since.



PET

Our patented recycled PET technology turns plastic bottles into high-value foam materials used in applications ranging from wind turbine blades to surfboards.



POLYETHYLENE

Our thermal, acoustic and protective products made of polyethylene (PE) are ideal for insulating heating, hot and cold water, wastewater and HVAC systems.

EXCELLENCE

For Armacell, excellence means pioneering technologies, reliable products and operational efficiency. Centres of excellence in our three regions strive to enhance this.





One of the soundest foundations underlying our strong market position is the multi-facetted expertise of our highly qualified global workforce. Trust-based teamwork and collaboration continue to pave the way for our success. Our priority is to invest in our people – and promote interdisciplinary, cross-site teamwork in close collaboration with all our customers. This enables us to deliver value-adding insulation solutions worldwide.





→ » Armacell has encouraged me to speak up, ask questions, and look at every opportunity as a learning experience. I can count on my local team and my global colleagues to support me when I need help. And I'm quick to offer the same support when they need it.«

» Our team is dedicated and passionate. We care for each other, support each other, are always communicating and solve any imminent issues in an efficient way. Our culture is to value professionalism and altruism while maintaining an attitude of continuous learning. «

Jackey Wu, Production Manager, China

Joanna Beckman, Marketing Communications Manager, USA

→ » What I appreciate most is the support we provide each other – the teamwork in our plant and at a global level. «

» Armacell is a big family and learning centre. We acknowledge success cases in different countries and simply apply or adapt them to our areas. That's a great recipe for success and heavily reliant on our colleagues' support worldwide. « **Tezel Mutlu,** Production Operator, Türkiye

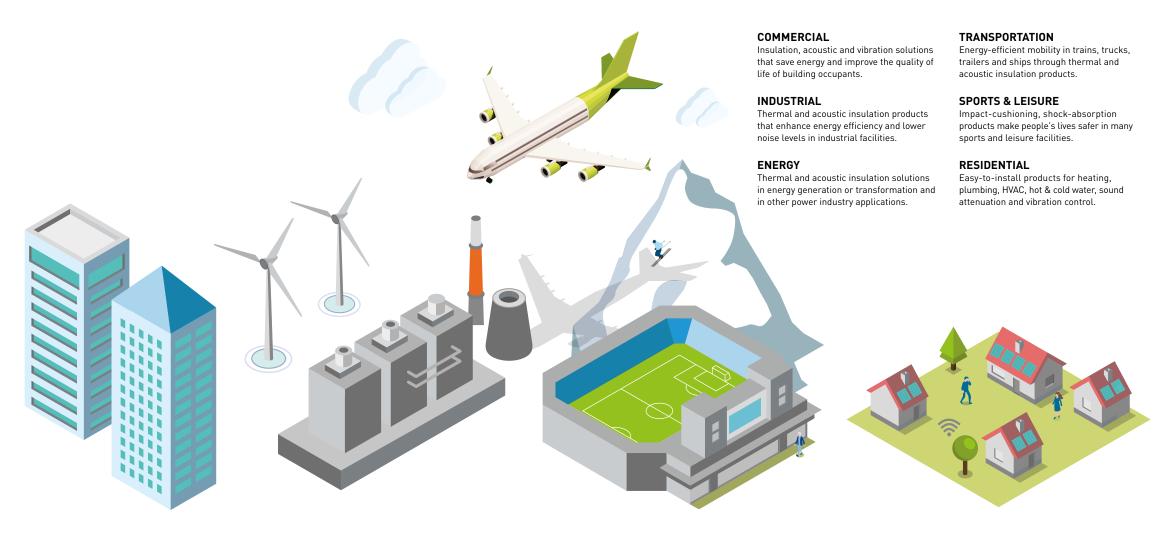
Chukiat Vachirasrisuntra, Business Manager, Thailand

» Our culture is based on mutual trust and respect between people working at different levels of the organisation. This way, we can achieve and even surpass our goals. The respect we have for each other despite any differences of opinion is particularly valuable. «

Dariusz Kazmierczak, World-Class Armacell Mindset Coordinator, Poland

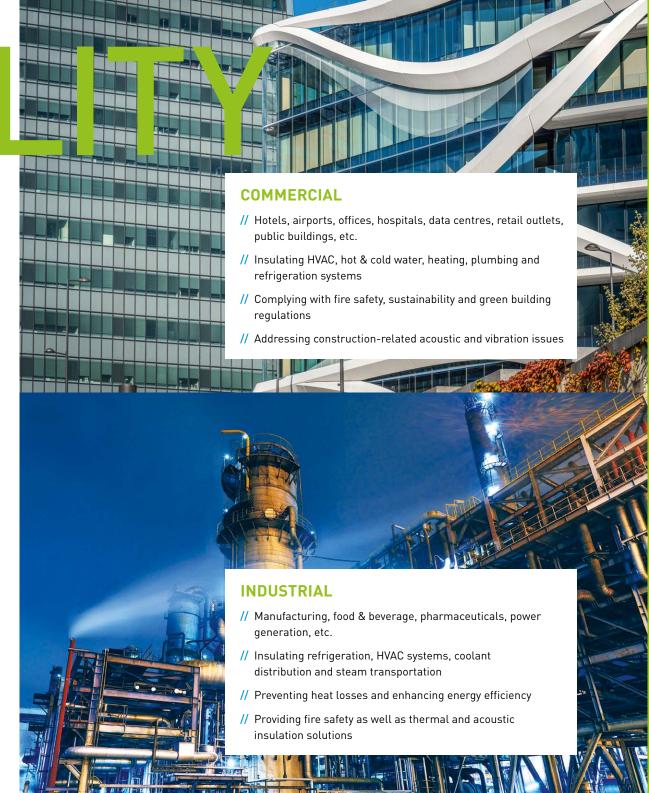
In 2023, insulation products for equipment in commercial buildings and industrial applications were again our strongest segments. Besides performing well in these key markets, our reinforced diversification strategy ensures we stay resilient in the face of tougher macroeconomic conditions.

DIVERSIFICATION



DURABI

Our insulation products are long-lasting. They extend the service life of commercial equipment and industrial systems, for example, and measurably reduce CO_2 emissions. Commercial and industrial applications account for more than half of Armacell's total net sales.



Saving energy, reducing noise, increasing comfort, improving safety: these are our products' strengths. Wherever people work or play, the superior performance of our solutions adds to the quality of their lives. Our high-performance products and solutions are delivering the value-enhancing answers markets are demanding. Answers we develop in close collaboration with our customers globally.

We collaborate closely with our customers to optimise our products' performance.

ArmaFlex®

All closed-cell insulation materials based on elastomeric foam



ArmaGel®

All products based on aerogel technology

ArmaClad™

All cladding solutions

ArmaComfort[™]

All insulation products for sound attenuation

ArmaComp™

All component foams

ArmaFix™

All mounting and fixing solutions

ArmaLight™

All polyethylene-based materials

ArmaPET®

All PET-based foams

ArmaProtect™

All fire protection solutions

ArmaSound®

All industrial acoustic solutions (incl. energy)



RESILIENCE

What made us strong in 2023 was the resilience of our business model. Our products and solutions are making a difference around the world by enhancing energy efficiency, preventing energy losses, protecting valuable resources, acting as firestops, mitigating noise and vibration, enabling lightweight solutions and improving sustainability. Ensuring our portfolio stays relevant is key.

REDUCED INDUSTRIAL NOISE

PROJECT: The UK national gas transmission operator had to meet the noise licence requirements for a flagship compressor upgrade at their Peterborough site. The Armacell team worked closely with the facility operator to recommend and oversee the installation of the best possible solution.

SOLUTION: Armacell measured on-site sound levels, determined the most significant noise sources and modelled the benefits of possible solutions. Following acceptance of an ArmaSound® Industrial Systems noise-reduction proposal, further support was provided to ensure a smooth installation process.



28 dB

reduction in on-site sound levels



NEW LANDMARK ON HANGZHOU SKYLINE

PROJECT: This 310-metre-high building is located next to the Olympic Sports Centre and houses office space, upscale hotels and shopping malls. Also known as Hangzhou Gate – it looks like a capital "H", Hangzhou's first letter in pinyin, and a pair of wings – it symbolises the city's shape and an arch bridge in the local culture.

SOLUTION: Hangzhou Gate's awe-inspiring architecture, with a total construction area of some 530,000 m², demanded high-performance insulation solutions. ArmaFlex® was used for the thermal insulation of its HVAC system.



7,500 m³

of ArmaFlex® insulation material installed



BLOCKBUSTER SOUNDPROOFING

PROJECT: Sony Pictures Studios in Los Angeles is an iconic location for motion picture production. For over a century, the studios have been producing classics such as Ben-Hur and Singin' in the Rain. To maintain their reputation for blockbuster quality, Sony had the studios completely remodelled and soundproofed.

SOLUTION: AP/ArmaFlex rolls applied over drywall and soundboard served as an additional sound barrier in the Fan Room and a plenum known as the Doghouse. Armacell trained Sony's in-house installers and will provide a post-inspection 10-year warranty.



32,000 sq ft of AP/ArmaFlex installed



LOWER CARBON FOOTPRINT

PROJECT: Myral, an outside wall insulation specialist, produces state-of-the-art cladding systems with attractive finishes. In line with their Neutral.ITE 2025 sustainability campaign, and together with other innovations, they are aiming to reduce their carbon footprint by 70% in 2025.

SOLUTION: Myral is using ArmaPET® Eco50, a fully recyclable insulation material made from recycled plastic bottles, in the production of their cladding systems. Myral is already on target to have one of the lowest carbon footprints in the cladding systems' market.



100% eco-friendly

ArmaPET® Eco50 in cladding systems



LOW-SMOKE, ENERGY-EFFICIENT INSULATION

PROJECT: The buildings in the first construction phase of this new university hospital get their underfloor heating from a district heating network, while the chilled water for cooling purposes is mainly seawater from Hafrsfjord. Best-practice standards are being applied to meet strict environmental requirements.

SOLUTION: The cooling pipes are insulated against energy losses and condensation with ArmaFlex® Ultima. This energy-efficient material generates 10x less smoke than a standard elastomeric product in the event of a fire and is accredited by major green building schemes.



30,000 m of cooling pipes insulated



COMMITMENT

Sustainability is at the heart of our business strategy and innovation efforts. We are particularly committed to five UN Sustainable Development Goals (SDGs) that are intrinsically linked to our business because our operations can have the biggest impact there.



SAFE WORKPLACE

Decent jobs are safe jobs. Our Health & Safety Policy and promotion of a zero-accident mindset are aimed at ensuring employees go home from work safe and healthy.



GREATER ENERGY EFFICIENCY

By enhancing energy efficiency and lowering CO_z emissions in a wide range of industries, our products enable a more effective global response to climate change.



INNOVATIVE TECHNOLOGY

The innovative products and solutions we develop and market conserve energy and enable lightweighting solutions in the automotive, rail and wind power industries.



LESS PLASTIC POLLUTION

Plastic waste is polluting waters worldwide. Our PET foams are made from recycled plastic bottles, which may otherwise have ended up in lakes, rivers or seas.



PRESERVING RESOURCES

We implement responsible resource-use and production policies and are committed to delivering sustainable value through low-impact, long-lasting products.



WE SUPPORT

Since 2006, we have been supporting the United Nations Global Compact (UNGC) initiative and aligning our strategies and operations to its Ten Principles to meet our fundamental responsibilities in the human rights, labour, environment and anti-corruption fields.

المستفسمين المستنا

FOCUS AREAS

- // Investing in our People
- // Protecting our Planet
- // Enabling Governance
- // Furthering Sustainable Growth



More information about sustainability at Armacell is available on our website: www.armacell.com/en-GB/sustainability-highlights



ACHIEVEMENTS

ENABLING ENERGY EFFICIENCY FOR EQUIPMENT WORLDWIDE







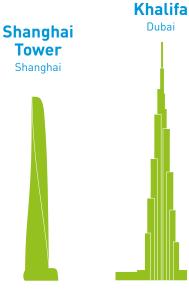




Citic

Tower

Beijing



Burj

25 plants in 19 countries



3,372 employees worldwide



70+ nationalities



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FINANCIAL RESULT

CEO LETTER

DEAR FRIENDS OF THE COMPANY,

WHAT MAKES US STRONG - The theme of this annual report relates to the sound foundations laid in the year under review. 2023 was a historically successful year, with Armacell putting in a strong performance in the face of tougher macroeconomic conditions, geopolitical tensions and high inflation rates in raw materials, energy and our general fixed costs. Both our net sales and EBITDA continued to grow in line with our strategy, and we did well in our key destination markets. Our improved results were mainly driven by the higher volumes generated in the Commercial, Industrial and Transportation segments, sales price increases implemented to compensate for higher input costs, contributions from our new products and additional sales from recent acquisitions.

Strong performance

In the financial year ending 31 December 2023, our net sales rose by 3.7% to €836.1 million, up from €806.2 million in 2022. Our adjusted EBITDA was €154.6 million, which was €33.9 million higher than in 2022. Our adjusted EBITDA margin in 2023 was 18.5%. The net sales figures recorded by our business units were as follows: Advanced Insulation EMEA €328.1 million (+13.4%), Advanced Insulation AMERICAS €224.0 million (+7.8%), Advanced Insulation APAC €126.8 million (-5.6%) and Engineered Foams €157.2 million (-10.1%).

Focus on growth areas

Our strongest segment was again Commercial Equipment, which accounted for over half our net sales and benefited from a growing awareness of the need for enhanced energy efficiency. Our second-largest segment, Industrial insulation, was boosted by soaring energy costs and stricter regulations to mitigate heat loss. In 2023, we successfully reoriented our activities towards a reinforced industrial insulation offering. Our Energy segment presented a mixed picture: on the one hand, strong growth driven by our ArmaGel® product range; on the other hand, Wind is still at a low level, though acceleration is expected from the second half of 2024. In 2023, Residential Equipment - to which the company has limited exposure - was impacted by the economic slowdown, as was Sports & Leisure to a lesser degree. In Transportation, we foresee significant investments in rail networks, especially in the U.S., that will reinforce the positive trend.

» 2023 was a historically successful year. «

Footprint consolidation

The ongoing consolidation of our operations to further improve customer service levels and enhance our efficiency was a difficult but necessary exercise. We have specialised our manufacturing facilities by establishing centres of excellence for flexible elastomeric foam (FEF) insulation in Münster, Germany, and in Mebane (North Carolina), USA, as well as polyethylene (PE) insulation in Środa Śląska, Poland. Moreover, some smaller plants have been consolidated into larger specialised sites, for example, through bundling the Friesenhofen portfolio in Münster, both in Germany; transferring production from Dallas (GA) to Mebane (NC), both in the U.S.; transforming Oldham, England, and Dallas (GA) from manufacturing sites into distribution centres; and building up our organisation at the new process excellence and corporate services centre in Wrocław, Poland.

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FINANCIAL RESULTS

CEO LETTER

Resilient business model

Greater diversification has made our business model more resilient. Our Passive Fire Protection and Acoustic solutions, for example, have broadened our product portfolio and show strong growth potential. With innovation an integral part of Armacell's DNA, recent launches such as ArmaGel® HTF have played a key role in strengthening our business. District Heating is also an increasingly important market we are serving through Armacell Austria and Armacell Serbia, both acquired in 2022. In the U.S., we established Armacell AIS, a joint venture for the manufacturing of insulation jackets, operating from our existing facility in Yukon (OK).

Advancing sustainability

Armacell is leading sustainability efforts in the insulation business and assisting our customers to drive sustainable development in their own industries. Our innovative energy-efficiency solutions are paving the way to a more sustainable world. At the same time, we have been addressing the need to reduce our own carbon footprint and working towards measurable time-bound goals through our recent commitment to the Science Based Targets initiative (SBTi) with its clearly defined pathways to reducing greenhouse gas emissions. Moreover, our employees' occupational health and safety were once again a high priority in all our operations.

» Our markets continue to be driven by greater energy efficiency awareness. «

Throughout the year under review, the entire Armacell team worked hard to "make a difference around the world" through our products and services. Together with the Executive Management Team, we would like to thank our employees for their untiring efforts and our customers and business partners for their continuing trust in the company.

Yours sincerely,

Laurent Musy

Patrick Mathieu

In April 2024, Laurent Musy joined Armacell as President and CEO. Patrick Mathieu serves as Non-Executive Director to the company's Supervisory Board.



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EXECUTIVE MANAGEMENT TEAM 2023

Armacell's executive team comprises eleven highly experienced international managers representing seven nationalities and a diverse set of skills. Their common purpose is to drive the company's future growth by fostering innovation, encouraging commitment and promoting entrepreneurship.



Adrian Yeandle

Chief Legal & Compliance Officer Wim Van Acker¹ Chief Financial Officer Guillerme Huguen¹
Chief Strategic
Development

Officer

Malte Witt Vice President EMEA Sophie Ancelin¹ Chief Human Resources Officer Patrick Mathieu² Chief Executive Officer

Roberto Mengoli Chief Technology Officer Marc Cangelosi
Chief Marketing
Officer

Bart JanssenVice President
Engineered Foams

& Energy

Liam Douglas Vice President APAC **Ciro Ahumada** Vice President AMERICAS

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INANCIAL RESULTS

¹ Member of the Management Board

² Chairman of the Management Board (until March 2024)

STRATEGY

Our vision is to position Armacell as
the global leader in providing
innovative, technical insulation
solutions and components
to save energy and make a
difference around the world.

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FINANCIAL DECUIT

STRATEGY

At Armacell, we continuously invest in strategic projects and focus on creating sustainable value for our highly diversified global customer base. We have a long track record of growth, superior profitability and cash generation orchestrated by a proven management team who have positioned Armacell as the trusted partner in the energy conservation market.

GROWTH

- // Operating in the +€10 billion global technical equipment insulation market
- // Multi-pillar growth strategy
- // Organic long-term growth rate of insulation business at approximately 5% p.a.
- // Continued focus on external growth opportunities

RESILIENCE

- // Strategic development driven by global megatrends
- // Broad range of end markets
- // Diversification across equipment verticals
- // Resilient through economic cycles
- // Asset- and capital-light business model
- // New opportunities from growing environmental awareness

MULTI-MATERIAL

- // Successful track record of expanding into adjacent technical insulation sectors
- // Extension of temperature range and application horizon
- // Broadening of core insulation business, including rPET and aerogel
- // Addressable market size more than doubled during the past investment period

INNOVATION

- // Recognised as an industry and technology leader
- // Driving industry-leading solutions and new technologies contributing to sustainability and global energy efficiency
- // Dedicated teams continuously develop IP portfolio
- // Broad portfolio of patents (300+ patents)
- // Proprietary technology with over 50 separate patent
 families

EXCELLENCE

- // World-class standards and pioneering technologies protecting market leadership
- // Energy-efficient solutions
- // Reliable, certified product performance and extended lifetime
- // Operating efficiency and execution excellence
- // Governed by the World-Class Armacell Mindset (WAM)

FINANCIAL STRENGTH

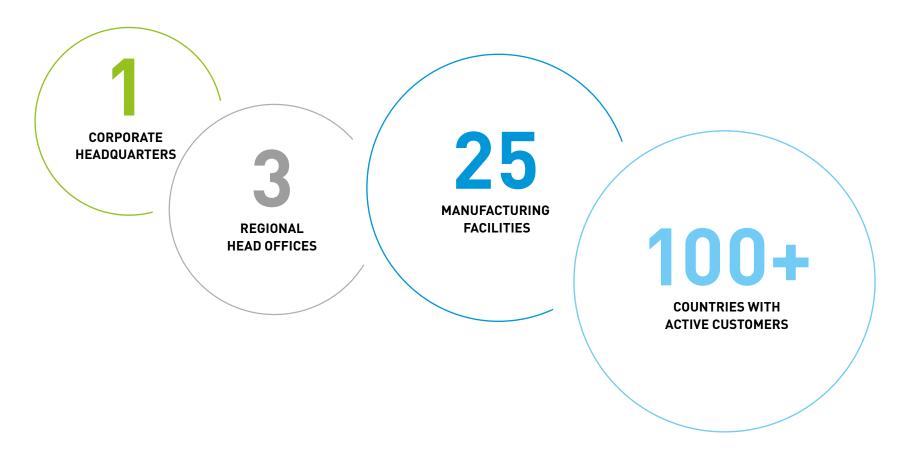
- // Armacell's financial strategy drives dynamic growth
- // Best-in-class profitability levels: low capital intensity, high cash conversion
- // Optimal use of raw materials, natural resources and energy
- // Maximum operational efficiency and low production costs

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FINANCIAL RESULTS

GLOBAL PRESENCE



Global presence, local focus

Armacell is a globally operating company managed from its corporate headquarters in Luxembourg and from regional head offices in Germany, the USA and Singapore. Multiple national teams ensure the appropriate local focus. In countries where Armacell does not have its own facilities, sales offices and distributors extend the Group's presence to ensure a truly global network. Armacell customises its products locally at 25 manufacturing facilities in 19 countries to quarantee a customer-centric product portfolio. Four product innovation centres spread across the world ensure a steady supply of pioneering innovations to meet customer and market requirements. We operate centres of excellence for flexible elastomeric foams in Münster, Germany and in Mebane (NC), USA, and for polyethylene foam products in Środa Śląska, Poland. The expertise in PET technology is centred in Thimister, Belgium, and the aerogel insulation blankets technology in Cheonan, South Korea.

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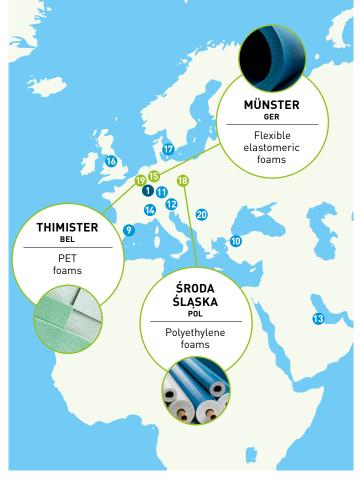
FINANCIAL RESULT

OPTIMISED MANUFACTURING FOOTPRINT

Regional head office Centre of excellence

Manufacturing facility







CORPORATE

1 LUXEMBOURG - LUX (Global headquarters)

AMERICAS

2 BRAMPTON - CAN

CHAPEL HILL, NC - USA

⚠ CONOVER, NC - USA 5 FLORIANÓPOLIS - BRA

6 MEBANE, NC - USA

7 SPENCER, WV - USA

8 YUKON, OK - USA

EMEA

9 BEGUR - ESP 10 BURSA - TUR

11 FRIESENHOFEN - GER

GÖDERSDORF − AUT

13 HIDD - BHR

 LEINI − ITA 15 MÜNSTER – GER

16 OLDHAM - GBR

1 ØLSTYKKE - DNK

ŚRODA ŚLĄSKA – POL

19 THIMISTER - BEL 20 ZRENJANIN – SRB 21 CHEONAN - KOR

22 PANYU - CHN

23 PUNE - IND 24 SINGAPORE - SGP 25 SUZHOU - CHN

28 TOKYO – JPN

2 YINGDE - CHN

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FINANCIAL HIGHLIGHTS 2023

- // Net sales rose by 3.7% to €836.1 million by the end of 2023
- // Adjusted EBITDA at €154.6 million, resulting in an adjusted EBITDA margin of 18.5%
- // Equipment in commercial buildings and industrial insulation strongest segments
- // Optimised manufacturing footprint and reinforced diversification strategy

CORPORATE RATINGS



KEY FINANCIAL FIGURES

in € million	20197	2020	2021	2022 ⁸	2023°
Income statement ¹					
Net sales	644.4	590.5	676.6	806.2	836.1
Adjusted EBITDA ²	133.5	119.6	116.8	120.7	154.6
Adjusted EBITDA margin	20.7%	20.2%	17.3%	15.0%	18.5%
Adjusted EBITA ³	102.7	87.5	80.9	76.8	112.6
Adjusted EBITA margin	15.9%	14.8%	12.0%	9.5%	13.5%
Adjusted EBIT ⁴	65.8	48.6	42.1	35.1	69.6
Adjusted EBIT margin	10.2%	8.2%	6.2%	4.4%	8.3%
Cash flow ¹					
Adjusted cash flow from operating activities ⁵	129.1	100.6	70.8	132.0	157.5
Investments (excluding acquisitions)	44.3	44.2	41.4	41.4	34.3
Adjusted free cash flow ⁶	85.6	57.9	30.5	92.2	131.5
Balance sheet¹					
Current assets	265.2	268.4	286.5	316.9	284.9
Non-current assets	1,020.6	1,437.4	1,347.1	1,222.9	1,167.1
Current liabilities	1,272.7	185.3	214.7	298.3	253.1
Non-current liabilities and equity	13.1	1,520.5	1,418.9	1,241.5	1,198.9
Net debt – excluding shareholder loans ¹					
Equity (including shareholder loans)	249.5	530.1	455.2	300.6	272.0
Net debt	621.4	736.2	752.5	792.8	749.5

NOTES

- ¹ Consolidated financial statements for 2020 were prepared for Neptune Holdco and included ten months of Armacell Group activities in 2020.
- ² Adjusted for non-recurring items.
- ³ Adjusted for non-recurring items and asset impairments.
- ⁴ Adjusted for non-recurring items and impairment loss on goodwill in 2021 and 2022.
- ⁵ Adjusted for non-recurring items, depreciation and interest expenses on lease in 2019.
- ⁶ Adjusted for depreciation and lease interest expenses in 2019.
- ⁷ IFRS 16 applied since 1 January 2019.
- 8 Including impact from hyperinflation in Türkiye.
- ⁹ Excluding amortised costs and accrued interest.

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REPORTING STRUCTURE

On 28 February 2020, private equity funds managed by PAI Partners S.A.S. and KIRKBI Invest A/S, shareholders of Neptune Holdco S.à r.l., acquired Armacell International S.A. and its subsidiaries (hereafter also referred to as 'Armacell' or 'Armacell Group'). The Armacell Group's fiscal year starts on 1 January and ends on 31 December of each year.

The Armacell Group is organised into two business divisions: Advanced Insulation and Engineered Foams.

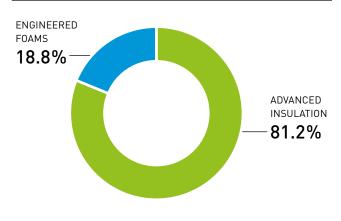
ADVANCED INSULATION

The Advanced Insulation (AI) division provides flexible foam solutions to insulate and protect technical equipment. The AI division's main value creation activity is the co-design of energy-efficient installations in various end markets, of which commercial, industrial, energy and transportation are the most important ones. The division is managed across three regions: Europe, the Middle East and Africa (EMEA), North and South America (AMERICAS), and Asia Pacific (APAC).

ENGINEERED FOAMS

The Engineered Foams (EF) division develops and produces custom-made, high-performance and lightweight foams used across a broad range of end markets, including energy (mainly wind energy) and transportation. Its portfolio consists of sustainable structural PET foam cores as well as elastomeric and polyethylene component foam solutions. The main value creation activity of the EF division is the customisation of the physical properties of semi-finished and finished components sold to converters and OEMs.

NET SALES BY BUSINESS DIVISION



NET SALES BY REGION



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GROUP PERFORMANCE

NET SALES AND PROFIT

In 2023, Armacell achieved total **net sales** of €836.1 million, an increase of 3.7% on 2022 (€806.2 million). This performance was mainly driven by the full-year impact of the 2022 acquisitions in Austria (Austroflex), Japan (SpiderPlus) and Serbia (Izolir), strong demand in our core insulation segments commercial and industrial, the launch of new products, and price increases required to offset inflation. Growth was partially offset by negative FX as well as the global slowdown in wind energy. The Group was also impacted by a slowdown in residential, however has limited exposure to this end market.

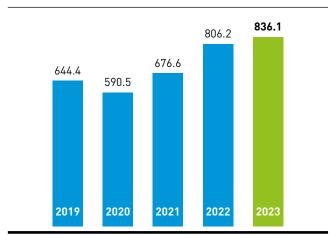
Armacell generated an adjusted **EBITDA** of €154.6 million, which was €33.9 million higher than 2022 (€120.7 million). The adjusted EBITDA margin amounted to 18.5% (2022: 15.0%). This improved performance was driven by higher volumes, additional cost efficiencies, and price increases that compensated for inflation. The adjusted **EBITA** was €112.6 million (2022: €76.8 million).

INVESTMENTS AND CASH FLOW

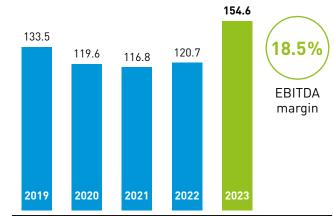
On 31 December 2023, **net debt** amounted to €749.5 million as opposed to €792.8 million at the end of the previous year. This decrease of €43.3 million is primarily explained by the strong EBITDA and the normalisation of inventory levels made possible by more reliable supply chains.

In 2023, Armacell continued to generate a strong free **cash flow** amounting to $\[\]$ 131.5 million (2022: $\[\]$ 92.2 million). At year-end, the Group had $\[\]$ 50.4 million cash on hand (2022: $\[\]$ 61.6 million), and the $\[\]$ 110 million of the **revolving credit facility** remained entirely undrawn (2022: $\[\]$ 41.8 million drawn).

NET SALES in € million



Adjusted EBITDA in € million



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GROUP PERFORMANCE

BALANCE SHEET

As of 31 December 2023, Armacell's total assets were €1,452.0 million (2022: €1,539.8 million).

The total **non-current assets** amounted to €1,167.1 million (2022: €1,222.9 million). The decrease of 4.6% on the prior year was explained by FX and the amortisation of intangible assets.

in € million	31 Dec. 2022	31 Dec. 2023
Property, plant and equipment	338.0	337.2
Goodwill	532.4	516.0
Other intangible assets	332.2	302.7
Other non-current assets	20.3	11.2
Non-current assets	1,222.9	1,167.1

As of 31 December 2023, **current assets** of €284.9 million had decreased by 10.1% in a year-on-year comparison (2022: €316.9 million). This trend was mainly driven by the normalisation of inventory levels enabled by more reliable supply chains and the optimisation of payment terms.

31 Dec. 2022	31 Dec. 2023
116.7	104.9
106.3	97.2
61.6	50.4
32.3	32.4
316.9	284.9
	116.7 106.3 61.6 32.3

At the end of 2023, **non-current liabilities** (excluding the liabilities due to shareholders) amounted to €926.9 million (2022: €940.9 million), a decrease of 1.5% on the prior year. This was mainly driven by a lower amount of derivative financial liabilities and a decrease of deferred tax liabilities.

Current liabilities amounted to €253.1 million (2022: €298.3 million), a decrease of 15.2% in a year-on-year comparison. This was mainly due to a decrease in short-term borrowings. The short-term liquidity ratio was 58.3% (2022: 56.3%) in relation to the cash and cash equivalents and trade receivables totalling €147.6 million (2022: €167.9 million).

As of 31 December 2023, **equity including shareholder loans** amounted to €272.0 million (2022: €300.6 million).

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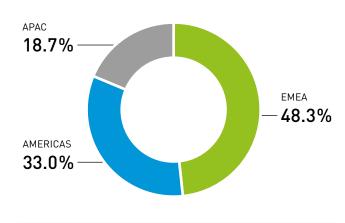
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SEGMENT PERFORMANCE

ADVANCED INSULATION

In 2023, the net sales from Armacell's Advanced Insulation (AI) division amounted to €678.9 million (2022: €631.3 million), or 81% of total net sales in 2023 (2022: 78%).

NET SALES BY REGION (AI)



→ Net sales (AI)
€678.9 million

Advanced Insulation EMEA

The net sales generated by Advanced Insulation EMEA increased by 13.4% from €289.3 million in 2022 to €328.1 million in 2023.

This double-digit growth is mainly explained by positive business development made possible, among other things, by the launch of innovative ArmaPrene™-based product ranges, the full-year impact of the 2022 acquisitions in Austria (Austroflex) and Serbia (Izolir), and price increases required to offset inflation.

KEY FIGURES - AI EMEA

in € million	2021	2022	2023
Net sales	250.7	289.3	328.1

Advanced Insulation AMERICAS

The net sales generated by Advanced Insulation AMERICAS increased by 7.8% from €207.8 million in 2022 to €224.0 million in 2023.

This growth was driven by strong market demand, new solutions launched for various end markets, the deployment of the innovative ArmaGel®-based product ranges, and higher sales prices required to compensate for inflation, which was only partially offset by the weaker U.S. dollar.

KEY FIGURES - AI AMERICAS

2021	2022	2023
164.8	207.8	224.0

Advanced Insulation APAC

The net sales generated by Advanced Insulation APAC decreased by 5.6% from €134.3 million in 2022 to €126.8 million in 2023.

The lower net sales are mainly explained by the more challenging economic situation in the Greater China market and unfavourable FX. These trends were partly offset by growth in the industrial and energy end markets, enabled by the launch of a dedicated product portfolio and value adding services.

KEY FIGURES - AI APAC

in € million	2021	2022	2023
Net sales	110.9	134.3	126.8

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SEGMENT PERFORMANCE

ENGINEERED FOAMS

In 2023, the net sales from Armacell's Engineered Foams (EF) division amounted to €157.2 million (2022: €174.9 million), or 19% of total net sales in 2023 (2022: 22%).

KEY FIGURES - EF

in € million	2021	2022	2023
Net sales	150.1	174.9	157.2

→ Net sales (EF) €157.2 million

Component Foams

In 2023, net sales in Armacell's Component Foams business decreased by 11% from €119.5 million in 2022 to €106.1 million in 2023.

The lower net sales are mainly explained by the company's decision to stop selected low-margin and non-core product ranges and the weaker U.S. dollar, which was only partially offset by new business development.

PET

In 2023, net sales in Armacell's PET business decreased by 8% from €55.4 million in 2022 to €51.1 million in 2023.

This decrease resulted from the global slowdown in the wind energy market, which is only partially compensated by the company's diversification strategy and growth in non-wind applications. Volume growth in non-wind is however accelerating, supported by the increasing need for lightweight recycled solutions and enabled by the launch of dedicated product ranges such as ArmaPET® Eco50.

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OUTLOOK & MARKET CONDITIONS

DESTINATION MARKETS



// COMMERCIAL

Commercial end markets, including the insulation of equipment for schools, supermarkets, data centres, hotels, airports, offices, hospitals, and public buildings, accounted for over 50% of 2023 sales. Demand in this segment is strong and driven by infrastructure investments, energy efficiency concerns and environmental building regulations.



// INDUSTRIAL

Demand in Industrial, the Group's second largest end market, remained strong in 2023 and continues to be driven by growing energy efficiency awareness and stricter heat loss regulations, as well as the desire of owners to better protect their people and assets.



// TRANSPORTATION

Transportation is supported by a high level of investments in rail, particularly in the U.S. where the Biden-Harris Administration is deploying a 3-billion-dollar infrastructure investment plan.



// ENERGY

In Energy, the Group sees a mixed picture with strong business development supported by the further development of the ArmaGel® product range. Demand in the global wind energy segment continued to be weak but is expected to accelerate again, driven by the transition to green energy and the launch of a new high-performing product range.



// RESIDENTIAL

Demand in Residential slowed down in line with global market trends due to the negative impact of higher interest rates. However, Armacell only has limited exposure to this end market.



// SPORTS & LEISURE

The trend in Sports & Leisure is still mitigated since parts of our business, especially in the U.S., goes through Retail which is prone to slow down in a difficult economic environment.

OUTLOOK

The Armacell Group is pursuing a multi-pillar growth strategy. The organic annual growth rate of Armacell's insulation business is approximately 5% and driven by global megatrends (e.g. increasing energy efficiency awareness, lightweighting, transition to renewable energy), regulations aimed at reducing ${\rm CO}_2$ emissions, substitution of legacy materials on the back of better product performance, and innovations opening up new opportunities.

In addition, the Group is looking for external growth opportunities either to consolidate a fragmented industry or to accelerate access to new geographies, technologies or design capabilities.

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RISK MANAGEMENT

Armacell is exposed to a number of risks that are inseparable from the entrepreneurial nature of its business. In order to identify and mitigate possible risks at an early stage, Armacell continuously monitors potential sources of risk.

Industry-specific risks

There are significant barriers to entry in the flexible insulation and technical foam markets. This is particularly true with respect to the initial investment, the required recipe and process knowhow, intellectual property, as well as the necessary penetration of distribution channels via a global commercial organisation. The risk that new competitors will enter this high-end market and gain material market shares is considered to be limited.

Furthermore, Armacell offers products developed with the latest technologies based on prevailing industry regulations in premium segments. Hence, the Group is in a position to continuously optimise production costs. Nevertheless, ongoing competitive pressure on prices is still expected, and this risk is managed by continuously focusing on the customers' price, quality, availability and service requirements.

As Armacell is active in businesses that benefit from more stringent environmental laws and regulations, more industry-specific opportunities than industry-specific risks are expected here. Since stricter environmental protection regulations and requirements may well trigger plant modernisation measures in future, this would boost the demand for equipment insulation products and positively impact the Group's earnings.

Risks relating to the corporate strategy

In view of Armacell's highly diverse customer base and focus on recurring business from long-term customer relationships, no material risks relating to its corporate strategy are foreseen. The top ten customers account for less than 20% of net sales.

- // The focus continues to be on the Advanced Insulation business, in which Armacell is seeking to enlarge its addressable market and develop new opportunities. The expansion into 'hot' or higher temperature applications is based on the development of higher performance foams, new material technologies and system solutions.
- // In Engineered Foams, Armacell strives to capitalise on the disruptive proposition and substitution potential of PET foams over legacy materials, such as balsa wood and PVC in the wind energy, infrastructure and transportation markets. In Component Foams, the pursuit of lightweight solutions across a variety of applications and industries is likely to drive the use of Armacell's high-performance flexible foam components at the expense of heavier solid-plastic solutions.

To mitigate risks, Armacell has introduced appropriate measures to align production capacity to the expected demand requirements. In addition, Armacell is continuously exploring and developing new and promising market opportunities, such as aerogel-based insulation, acoustic systems and solutions, passive fire protection solutions, and PET foams, where it is pursuing a reinforced diversification strategy.

The Group is continuously assessing its commercial excellence and routes to market, as well as looking for opportunities to extend its geographic reach.

// INNOVATION

Armacell strategically invests in R&D activities to mitigate the risk of margin deterioration due to direct product competition. Since the Group's technology platform is one of its main competitive advantages, additional sales and profitable growth opportunities are expected through increased efforts in this area. This applies to both the continuous development of existing products and the launch of new products with value-added characteristics. Lighter and thinner, Armacell products – combining thermal and acoustic properties – allow customers to substitute legacy materials at a lower overall cost. In recent years, Armacell has increased the percentage of system sales, growing the euro value per metre of equipment insulation technologies sold to the global customer base.

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RISK MANAGEMENT

Performance-related risks

Armacell's margins have proved resilient during the financial and economic volatility of recent years. Raw material price pressures are managed through the ongoing multiple-sourcing optimisation of recipes and cost initiatives. The ability of the senior management to implement relatively short-term price increases to pass on higher raw material costs has had an additional attenuating effect.

Competing products generally depend on similar raw materials, with their product prices also determined by the balance of supply and demand. Hence, Armacell is focused on continuously investing in performance optimisation and improving the Group's long-term relative competitiveness to be able to absorb adverse raw material volatility or pass on peak raw material prices to customers.

Legal risks & ESG

Creating a robust ethics culture and a strong governance framework are critical mitigating measures to reduce the risk of compliance breaches that can cause reputational and financial harm. Armacell takes a strong line from top management down. All employees are subject to targeted compliance training and required to uphold the values and ethical standards defined in Armacell's compliance policies.

Emerging Environmental, Social and Governance (ESG) regulations, including new and more stringent environmental laws, are expected to result in both industry-specific opportunities and risks and will necessitate an increased focus on compliance initiatives. ESG compliance and reporting projects designed to meet the new and emerging requirements, such as the EU's CSRD, are already progressing well.

IT risks

In line with its manufacturing peers, Armacell is exposed to risks arising from digital disruption of the existing information technology (IT) infrastructure. The security and continuity of the Group's IT systems and data are ensured by a set of infrastructure and security measures defined and carried out by a global governance body comprised of corporate and local IT teams and in accordance with Group policies and best risk management practices.

In response to a cyber attack in 2020, various new security measures were implemented, and a Cyber Security Policy was published in 2021 to provide guidance to all employees on how to preserve the security of the data and IT infrastructure and mitigate security risks. Led by the Information Security Officer, the Group's security status and defences are continually being reviewed, ad hoc security policies and functions implemented and cybers security training carried out.

Financial risks

While facing the typical liquidity risks of private equity financing – interest charges and comparatively low equity ratios – Armacell's leverage position is in line with the standard of private equity-owned companies. Armacell has implemented strong cash management processes and tools to ensure it maintains a healthy cash buffer and stays clear of its covenants. Moreover, the financial risks from customer receivables are considered to be low. Besides the revolving credit facility of €110 million, the Group can optionally access new financing sources in the event of acquisitions or investments in the business.

As Armacell operates globally, its trading results are affected by foreign exchange (FX) rate volatility. The reported results are impacted by two different kinds of foreign currency risk.

Transactional risk arises from transactions denominated in currencies other than the functional currency of the subsidiary. In general, Armacell does not hedge its transactional exposure as the business is, to a large extent, naturally hedged, with local sourcing and selling usually in the same currency. However, some entities source and sell in different currencies, which gives rise to some transactional risks.

Translational risks arise when consolidating the Group results and relate to the exposure from translating the financial statements of subsidiaries using currencies other than the euro as their functional currency. More than two-thirds of the revenues are generated by entities using the EUR and USD as their functional currency. Other important foreign currencies within the Group are the CNY, CAD, INR and PLN. Armacell's senior management continuously monitors the underlying risks. The Group's decentralised organisation with local production facilities means that transactional risk has less of an impact than translational risk.

The total notional amount of bank loans as of 31 December 2023 was $\[\in \]$ 747.9 million (2022: $\[\in \]$ 802.9 million). Most of the bank loans are in euros. To manage its foreign currency exposure, the Group entered into cross-currency swaps totalling $\[\in \]$ 360 million effective 9 January 2022 and expiring after three years.

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RISK MANAGEMENT

The Group is exposed to interest rate risks from bank loans with variable interest rates. The main financing is based on an unchanged €710 million term loan with an originally agreed interest rate of Euribor +350 bps and a floor level of 0%. The margin was reduced during the year under review to Euribor +325 bps. The floor level remains unchanged. This loan will mature in 2027.

Armacell has access to a revolving credit facility of €110 million with an originally agreed margin of Euribor +300 bps and a floor level of 0%. In 2023, the margin was reduced back to Euribor +275 bps while the floor level remained unchanged. This revolving credit facility will mature in 2026.

The Group entered into interest rate swaps to the amount of €300 million in 2022. These swaps limit exposure to interest rate rises of more than 0.5% until the end of February 2024. Associated premiums are deferred and paid quarterly in equal instalments. As of 31 December 2023, the Group also entered into an interest rate swap in the amount of €235 million to limit the exposure of increased interest rates of more than 4.5%. The effective date of the swap is 28 February 2024, and the maturity date is 28 February 2025. The Group further has an interest rate collar for this amount.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due.

Other risks

Extreme weather and natural disaster events are expected to increase in frequency and intensity, thus posing an augmented infrastructure and human health risk. Such events can damage buildings, disrupt production and supply chains, cause repair costs and jeopardise employee safety. Armacell has developed a comprehensive emergency and disaster recovery plan along with employee procedures and responsibilities in order to effectively manage a variety of extreme weather situations.

There are several current and emerging geopolitical risks, such as wars and unstable or repressive political structures that may affect Armacell's operations and supply chains. Risks include disruptions to trade flows, shipping lines and raw material supplies, as well as cash repatriation.

Armacell's strong geographic diversification – Europe, North and South America, Asia Pacific and the Middle East – enhances the Group's resilience and mitigates any material risks otherwise arising from single market concentration. Recent acquisitions in Japan, Serbia and Austria have added to the Group's geographical spread and geopolitical risk mitigation.

Overall risk exposure

At the time of writing, there were no identifiable risks relating to future developments that could endanger the existence of the Armacell Group as a going concern. As Armacell has no special-purpose entities or investment vehicles besides the structured entity that delegates the accounts receivable management, there is no risk that might emanate from such a source. Aggregation of the most significant individual risks is not appropriate as such risks are unlikely to occur simultaneously. The overall risk analysis indicates that Armacell's exposure to risk does not represent any lasting endangerment to the net assets, financial position and result of Group operations. The overall picture shows no underlying change to the previous year's risk situation.

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GROUP MANAGEMENT 2024

The decision-making bodies of Armacell International S.A. consist of the individuals listed below. Responsible for the long-term success of the Group, they set the strategic goals, establish standards, and ensure compliance.

SUPERVISORY BOARD

- // Mathieu Paillat (Chairman)
- // Laurent Rivoire
- // Marlène Bazouin
- // Jacob Chris Lassen
- // Peter Bason
- // Jørgen Jensen (independent)
- // Patrick Mathieu (independent)

Audit Committee

- // Peter Bason (Chairman)
- // Mathieu Paillat

Remuneration and Nomination Committee

- // Mathieu Paillat (Chairman)
- // Jacob Chris Lassen

Sustainability Committee

- // Jacob Chris Lassen (Chairman)
- // Marlène Bazouin

MANAGEMENT BOARD/EXECUTIVE MANAGEMENT TEAM



Adrian Yeandle	
Chief Legal &	
Compliance	

Officer

Wim Van Acker¹ Chief Financial Guillerme Malte Huguen¹ Witt Chief Strategic Vice President Development **EMEA** Officer

Sophie Ancelin¹ Chief Human Resources Officer Officer

Laurent Musy² Chief Executive

Roberto Mengoli Chief Technology Chief Marketing Officer

Cangelosi

Marc

Bart Janssen Vice President Engineered

Foams & Energy

Douglas Vice President APAC

Liam

Ciro Ahumada Vice President AMERICAS

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¹ Member of the Management Board

² Chairman of the Management Board (since April 2024)

OWNERSHIP STRUCTURE

Since 28 February 2020, private equity funds managed by PAI Partners have been Armacell's majority shareholder. The remaining shares are held by the holding and investment company KIRKBI and Armacell's senior management team.

About PAI Partners

PAI Partners is a pre-eminent private equity firm investing in market-leading companies across the globe. The firm has over €26 billion of assets under management and, since 1994, has completed over 100 investments in 12 countries and realised more than €24 billion in proceeds from 59 exits. PAI has built



an outstanding track record through partnering with ambitious management teams where its unique perspective, unrivalled sector experience, and long-term vision enable companies to pursue their full potential – and push beyond.

www.paipartners.com

About KIRKBI

KIRKBI A/S is the Kirk Kristiansen family's holding and investment company founded to promote a sustainable future for the family ownership of the LEGO® brand through generations. Its strategic activities include 75% ownership of the LEGO Group and 47.5% ownership of Merlin Entertainments. The company's



investment activities also include investments in renewable energy, long-term investments in companies such as ISS, Nilfisk, Falck, Armacell and Välinge, and property investments in Denmark, Switzerland, Germany and the UK.

www.kirkbi.com

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CONTACTS & CREDITS

PUBLISHER

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89C, rue Pafebruch L-8308 Capellen Grand Duchy of Luxembourg www.armacell.com

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INVESTOR & MEDIA CONTACT

Tom Anen

Director Corporate Communications & Investor Relations Phone: +352 2484 9828 investors@armacell.com

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Michael Pfeiffer

Muriel C. de Jong nicolas grosmond

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Klaas Horeis

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