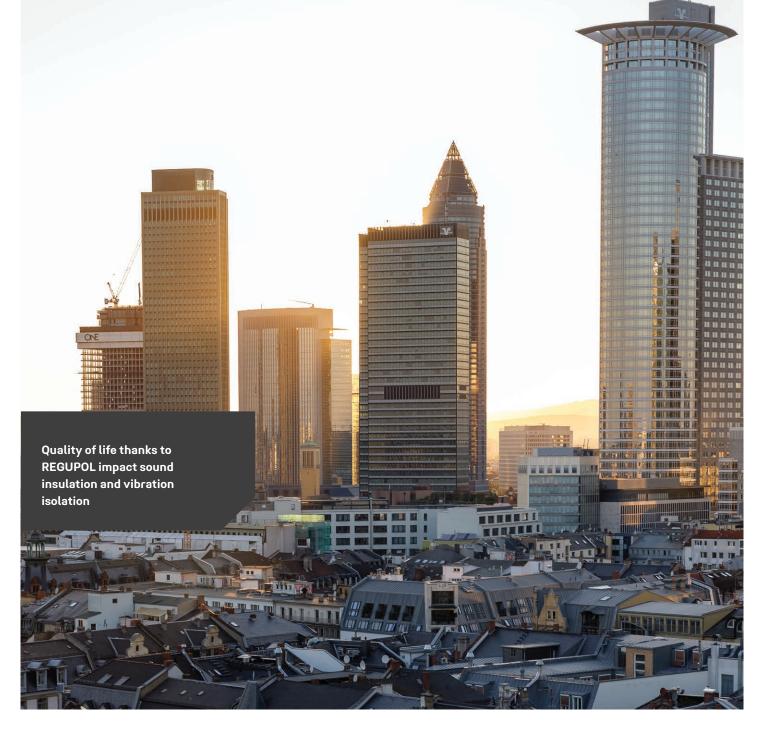
## THE EXPERT RESPONSE TO URBAN DENSIFICATION







# HOW CAN WE ENHANCE THE QUALITY OF **URBAN DENSIFICATION?** TOGETHER.

Urbanisation is a mega trend. Forecasts by the United Nations predict that 7 in 10 people worldwide will be living in cities by 2050. As there is already a great shortage of space, intelligent urban densification offers enormous potential. Increasing densification will have to take account of changing lifestyles and, using the city of short distances concept, will have to realise the conflict-free combination of working, living, retail and leisure activities in a confined space. The quality of the space created to achieve this can be significantly enhanced with the right partner providing the correct acoustic concept.

This means waste land and conversion areas close to critical rail infrastructure can be put to good use by constructing buildings on elastic bedding and this will result in additional building land being activated. Adding storeys to existing buildings, such as supermarkets, creates additional living space, gaps between buildings can be closed and brownfield land can be redeveloped to create new residential areas. In keeping with the circular economy cradle-to-cradle approach, modern architecture will have to fall back on sustainable concepts.

## **KEY TOPICS AT A GLANCE**









# 06

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**Applications** Our products are suitable for a wide range of applications.

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**REGUPOL Group** Get a better insight into our company and international sales team

### **The REGUPOL product range** Your key to effective noise control

**Service, Quality, Sustainability** Our quality, services and efforts to achieve sustainability

### HOW CAN WE MAKE **EFFICIENT SOUND INSULATION** POSSIBLE? TOGETHER.

CINEMA

Decoupling of structure-borne sound with **REGUPOL** or **REGUFOAM vibration**, floating floor constructions with REGUPOL or REGUFOAM sound and **REGUPOL sonus**, false wall constructions and suspended ceilings with REGUPOL sonusclips and REGUFOAM hangers



#### Contact us

Detailed technical information about **REGUPOL** can be found at www.regupol.com.au Or speak to us in person: +61 2 4624 0050 acousticsales@regupol.com.au

DENSIFICATION BY ADDING STOREYS Impact sound insulation for retail outlets or supermarkets with REGUPOL or REGUFOAM sound, Impact sound insulation for apartments above the supermarket with REGUPOL comfort, REGUPOL sonus

ELASTIC BEDDING OF BUILDINGS Vibration protection from critical rail infrastructure with **REGUPOL or REGUFOAM vibration** 

### The **REGUPOL** product range



**REGUPOL** comfort: Elastomer-based impact sound insulation for various types of floor design and screeds



**REGUPOL** sonusclips: Resilient sound isolation clips for mounting drywall to ceilings and walls



**REGUFOAM** strips: Highly efficient strips to reduce flanking noise in CLT timber structures



**REGUPOL** sonus: Cork/PU or rubber-based impact sound insulation for screeds and floor coverings



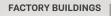
**REGUFOAM** hangers: Highly efficient mountings for suspended ceilings and pipe work, fan coil units, air conditioners piping



**REGUPOL OF REGUFOAM sound:** Elastomer-based impact sound insulation for various types of floor design and screeds that need to meet the highest acoustic requirements



**REGUPOL or REGUFOAM vibration:** Effective solutions for vibration isolation and structure-borne sound decoupling



Vibration isolation and decoupling of structure-borne sound in production industries with REGUPOL or REGUFOAM vibration

TIMBER STRUCTURES

Impact sound insulation with **REGUPOL comfort**, **REGUPOL sonus,** false wall constructions and suspended ceilings with **REGUPOL sonusclips** and **REGUFOAM hangers**, flanking noise reduction with REGUFOAM strips



**REGUPOL comfort S1:** Elastic, mass-increasing and airborne sound insulating levelling fill for concrete ceilings or wooden beam / solid wood ceilings

Urbanisation is now a permanent trend in spatial planning. A co-ordinated mix in densely populated inner city districts is becoming an increasingly decisive factor in determining what will make living in urban locations attractive in future.

A consequence of increasing urbanisation and the accompanying population development is the greater demand for housing, real estate and building land that needs to be satisfied. Intelligent densification of urban spaces is versatile and can culminate in very different concepts: revitalisation, addition of storeys, infill development and activating new building land.

With REGUPOL, structural engineers and building physicists put their trust in an expert with years of experience, who can actively help them to meet all the demands of sound and vibration insulation and make a significant contribution to successful inner-city densification.

#### Your benefits:

- reliable planning support and
- product performance
- a broad range of products and system solutions
- enable versatile design solutions
- decades of experience

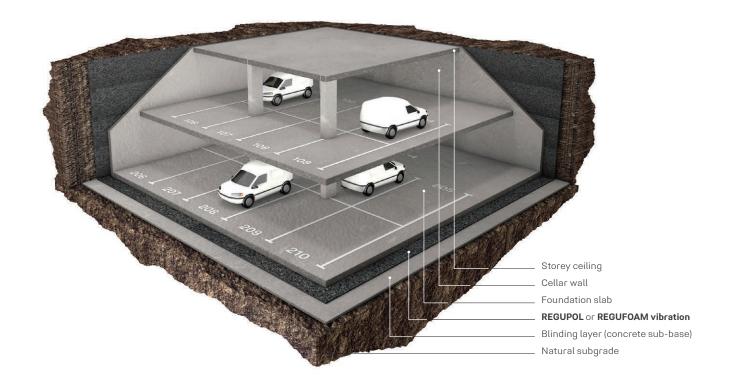
## HOW CAN WE CREATE **NEW LIVING SPACE IN THE CITY CENTRE?** TOGETHER.





As its scarcity increases, access to building land is becoming more difficult and consequently more expensive. Much greater importance is therefore being attributed to the activation of inner city building land and the targeted development of affordable building land in the catchment areas around our cities.

The lack of available building land can be counteracted by the effective application of sound and vibration protection. By using elastic vibration isolation products, disused railway property can be turned into new building land or so-called brownfield sites transformed to create attractive residential communities. For such transformations **REGUPOL** and **REGUFOAM vibration** products provide technically safe and economically reliable solutions. With an optimised product portfolio, including approved and externally monitored special products, the **REGUPOL** and **REGUFOAM** vibration range can meet the technical requirements to allow activation of brownfield sites for future planning and development.



**REGUPOL** vibration



**REGUFOAM** vibration



#### Our tip: 🗕

Ask the experts for a detailed consultation on product selection and dimensioning of the elastic bearings.

### HOW CAN WE GUARANTEE **COMFORTABLE LIVING** IN EVER DENSER URBAN SPACES? TOGETHER.



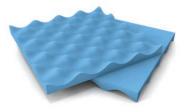
Building plots for new construction projects in our conurbations are very scarce and those that are available cannot satisfy demand. To find additional living space, planners are increasingly focussing on adding storeys to existing buildings, but not only in residential complexes. They are now turning their attention to "non-residential buildings" too.

In the main, these are office and administrative buildings as well as single-storey retail premises. Adding storeys to existing buildings takes up very little additional residential or transport-related land. "Living above the supermarket" is an economically and ecologically intelligent approach to urban densification.

To achieve effective reductions in low-frequency rolling noise and to guarantee conflict-free mixed use, highly efficient materials from the **REGUFOAM** or **REGUPOL** sound Range are laid beneath high-load floor structures to achieve impact sound insulation.



**REGUFOAM** sound



**REGUPOL** or **REGUFOAM sound** product ranges are tested according to ISO standards and offer maximum sound reduction at low thicknesses.

This carefully co-ordinated product portfolio, which also includes approved and externally monitored special products, provides the planning reliability needed in sensitive areas. For other areas, too, **REGUPOL** or **REGUFOAM** sound are definitely the right choice. For instance, in cinemas, theatres, libraries, workshops or for drivable surfaces in production and assembly halls, where especially noisy rooms need to be acoustically separated from the more vulnerable rooms in residential, office and commercial buildings. Just ask the acoustics experts!

> Tiles with tile adhesive Screed **REGUPOL** or **REGUFOAM** sound Concrete slab Perimeter isolation strip

### Our tip:

All **REGUPOL** or **REGUFOAM sound** impact insulation membranes are tested in Germany and certified throughout the EU - their quality is recognised worldwide.

## HOW DO WE RENOVATE ISTING BUILDINGS EFFECTIVE TOGET HER

TO CHES

The key to Green Cities is intelligent densification. A major role plays the efficient use of existing buildings and the conservation of finite resources. Therefore, increasing the refurbishing rate of housing stock is an important factor in the efforts of cities and municipalities to achieve their ecological and economic goals in future.

Old buildings often do not provide energy efficient structures or sufficient sound control. In contrast, more and more cities aim for an increased sustainability and a better living quality. That is why not only increased energy efficiency is being promoted but also acoustic insulation measures are being implemented by many countries worldwide. At the same time architects, developers or consultants are facing many other challenges when renovating existing buildings.

The elastic, fast-drying and mass-increasing levelling fill **REGUPOL comfort S1** in combination with efficient REGUPOL comfort impact sound insulation layers will contribute to the improvement of living quality. Additionally, our **REGUFOAM** hangers or REGUPOL sonusclips can be used in suspended ceilings or wall applications in order to comply with the most stringent sound insulation requirements.







Screed Polyethylene sheet REGUPOL comfort **REGUPOL** comfort S OSB floor boarding Plasterboard Insulation **REGUFOAM** hangers Wooden beams

### Good to know:

We would be glad to provide you with detailed technical information about **REGUPOL**. Just call or email us: **REGUPOL Australia** +61 2 4624 0050 acousticsales@regupol.com.au

### HOW DO WE ACHIEVE SUSTAINABLE BUILDING? TOGETHER.

In times where sustainable buildings are in rising demand, wood with its enormous ecological benefits presents an excellent solution in the construction industry. Whether it is a single-family house or a 'wooden skyscraper' that has to be designed, wooden buildings serve lots of advantages. However, this will inevitably result in challenging tasks for sound insulation.

Both mass-timber or wood frame structures show weaknesses when it comes to sound control, especially at low frequencies. Impact sound from people walking is the most common source for low-frequency sound transmission in various timber constructions. Often current standards and even strict acoustic requirements do not consider such frequency range, which needs to be addressed in detail.

With our **REGUFOAM hangers**, for example, suspended ceilings can be designed to result in significant improvements in the low frequency range.

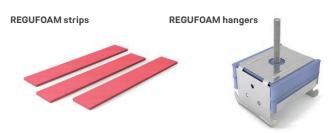




The acoustic improvement in cross-laminated timber structures, on the other hand, is achieved by using the elastic and mass-increasing levelling fill **REGUPOL** comfort S1. In combination with the highly efficient REGUPOL comfort impact sound insulation layers, this approach results in very effective sound insulation.

Additionally, the **REGUFOAM vibration** range offers perimeter strips to reduce the flanking noise transmission.





### HOW CAN WE BUILD MORE **GREEN BUILDINGS?** TOGETHER.

The global movement towards a more sustainable existence is benefiting not only the natural environment, but also the daily lives of humans across the world. By embracing new ideas, innovations and attitudes we are, in-turn, benefiting our own health, well-being and comfort.

Pioneering architecture is testament to our evolving environmental consciousness. Our work, home and recreational domains are transforming as we craft our man-made environments to work in better harmony with the natural world.

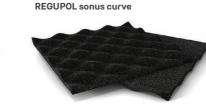
**REGUPOL's** long-established environmental credentials have earned the brand widespread recognition as a sustainable solution in green buildings.

At **REGUPOL** we are committed to offering you products that are safer for you and our planet. Our products **REGUPOL** sonus core, REGUPOL sonus curve, REGUPOL sonus multi, and **REGUPOL sonus eco** ranges of floor impact sound insulation products are certified by GECA (Good Environmental Choice Australia), a certification that's awarded to products that adhere to strict environmental, health and ethical standards. GECA certification is testimony to our dedication to creating sustainable products that don't affect your health and minimize their impact on the environment as far as possible.

**REGUPOL** sonus core







"GECA is proud to have **REGUPOL** as one of its longeststanding licensees, who are leaders in their industry and committed to a sustainable future. Their GECA certified products attribute to many green building programs including, GBCA's Green Star (Level A), WELL Building certification, ISCA's IS program as well as many procurement channels in government, education, hospitality, and healthcare".

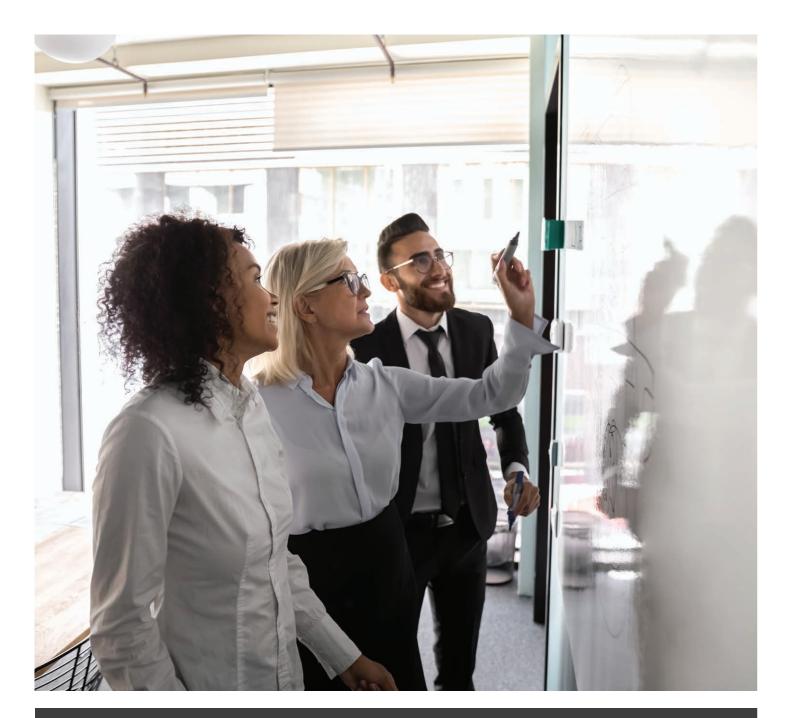
Michelle Thomas, CEO, GECA

The independent verification performed by GECA shows that the certified products are environmentally preferable and meet the requirements of GECA 25-2011 v2.0i Floor Coverings Standard is recognised by the Green Building Council of Australia (GBCA) under their assessment framework for product certification schemes. The selected **REGUPOL** products will provide a level A sustainability factor weighting (100% within the Green Star Sustainable Products Material Category).

For more information on GECA visit www.geca.eco









## HOW ARE SOLUTIONS EASY AND INSPIRING? **TOGETHER.**

#### We've got it covered.

**REGUPOL** is more than sports and multi-purpose surfaces. More than our acoustic underlayments. And more than our state-of-the-art track and field surfaces. For over 65 years, providing solutions and delivering exceptional customer service has been our business. We understand that paying attention to the details is critical from the start of any project. Making changes later means inconvenience and additional expenses. We sweat those details so you don't have to.

Because we invented the technology to recycle end of life tyres into unique products, you benefit from decades of experience and expertise that only we can offer. That means the right information, advice, and answers when you need them, along with products that have been refined, tested, and retested over the years by our R&D team to deliver precision performance that will not disappoint. It is all accomplished with manufacturing that meets the highest quality standards with the strictest environmental requirements.

#### Delivering results, developing leaders worldwide

We have grown steadily since 1954 – new products developed, new subsidiaries established and new locations added.





Today, **REGUPOL** is still a family enterprise, with third and fourth generations currently working in company management. We have eleven offices in seven countries, all serving as epicentres for innovation, ingenuity, and community.

Behind every **REGUPOL** product, there is a talented team that works together, across the globe, to create performance solutions from reclaimed materials that deliver durability and protection where you need it most without sacrificing sustainability. Whether used to protect surfaces and optimize load transport or to dampen sound and vibration, **REGUPOL** gets it done. We deliver with a level of product, customer service, and investment that only the inventor can offer.

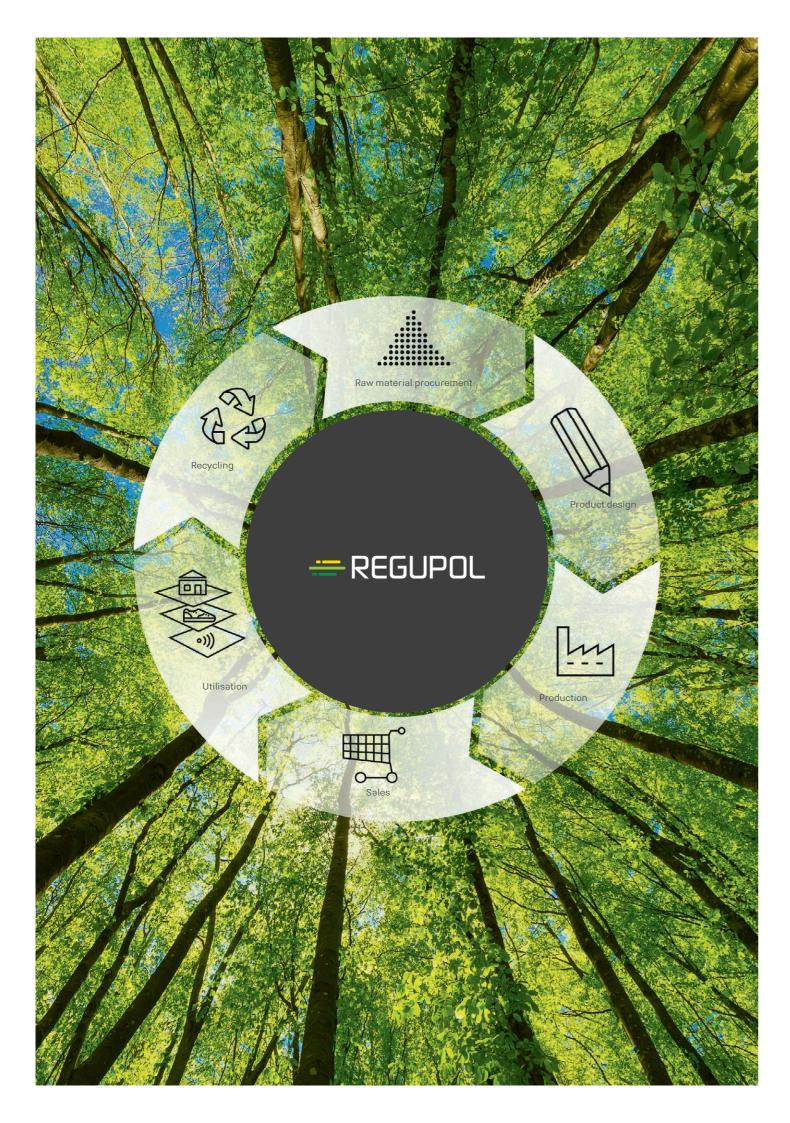
No matter the customer—we aim to make their experience easyand inspiring, at an only-at-**REGUPOL** value.





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Ask the experts about the best solution for your project. **REGUPOL Australia** +61 2 4624 0050 acousticsales@regupol.com.au



### HOW DO YOU BECOME MORE ENVIRONMENTALLY FRIENDLY? **TOGETHER.**

Caring about the environment is part of the REGUPOL core mission. When it comes to how we conduct our business and develop our products, we think long term. We ask ourselves: How will our actions today impact tomorrow's world? We strive to protect and sustain our environment every step of the way, from development and production to customer use and disposal.

On the road, tyres eventually wear down or sustain irreparable damage. But, in the environment, tyres can last forever. They are nonbiodegradable, unable to be compacted like plastic or metal, and maintain their shape. Because of their sheer size and impenetrable rubber compound, tyres are among the most problematic sources of waste we face today.

In the 1950s, polyurethane foam was new and very expensive. Instead of using all of the material produced, a considerable quantity was disposed. Our company was founded in 1954 to reprocess this wasted material into composite foam. Recycling is in our DNA.

#### How sustainable are REGUPOL products?

The circular economy works when recycled products compete directly with new products – we have been proving this for 65 years. **REGUPOL** products are typically made from 75% to 95% recycled materials, as are our sports mats. However **REGUFOAM** products are made from genuine raw materials.

### What standards and legal requirements does REGUPOL meet?

Our company has been fully DIN EN 14001 certified since 1997 and will remain so. In addition, our products and mats comply with paragraph § 45 II No. 2 of the German draft bill on recycling management. We hope that the clearly formulated regulation will help make government action more sustainable.





### What is sustainable about our human resources policy?

All our staff in Germany are paid according to a chemical industry-wide collective agreement. We are a recognised provider of insulation solutions and attach particular importance on training, which is why a large number of trainees undergo their training in-house.

### New Life: From the disposing to a recycling economy

**REGUPOL** is a founding member of the "Initiative NEW LIFE" and commits to an optimal recycling economy, together with the other member corporations. Jointly, the members want to point out the advantages of recycling products from ELT (End-of-Life-Tires) and motivate to act sustainably. More about the initiative: **www.initiative-new-life.de** 

### What is next?

We still have a lot to do. We look forward to the continued development to our take-back policies for our products and reprocessing them. This will significantly extend the useful life of our products and consume far fewer natural resources. Accompany us.

### REGUPOL's CO<sub>2</sub> balance sheet

In 2016, we partnered with the NRW Efficiency Agency to create a  $CO_2$  location balance sheet, showing our total greenhouse gas emissions as  $CO_2$  equivalents. We are on the right track.



# 700 employees

11

locations worldwide

90.000 tons of high recycled in

tons of high-quality recycled materials per year

132 ....

countries with satisfied customers





## HOW DO YOU GET TO THE TOP? TOGETHER.

When you partner with REGUPOL, you become part of a community with a shared goal of leading with excellence and innovation. Our path to success has always been rooted in product innovation and great service, with an eye on the future. We transform over 90,000 tons of high-quality recycled materials every year to create products that meet and exceed industry standards.

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Over the course of our 65-year journey to become a leader in our category of building materials, we have built up a wealth of expertise and forged long-term customer partnerships in 132 countries worldwide—like sprint legend Usain Bolt, who made history on our blue **REGUPOL** running track in Berlin's Olympic Stadium in 2009 when he set two world records.

"There's nothing like running on REGUPOL. To me, REGUPOL equals gold. In more ways than one." - Usain Bolt

We've got it covered.



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REGUPOL BSW GmbH REGUPOL America LLC REGUPOL Acoustics Middle East FZE REGUPOL Schweiz AG REGUPOL Zebra Athletics LLC BSW Shanghai CO. LTD.

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