

Project newsletter #5 December 2016

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Project Fast Facts

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Website: www.rewastee.eu

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Introducing TRIMSOUND

REWASTEE has been rebranded as TRIMSOUND to ensure that customers instantaneously recognises that TRIMSOUND is a sound-reducing acoustic product. This change also importantly coincides with the transition of the product range to its exciting new commercial phase, leading on from its successful research project beginning! Now let's all trim sound, with our eco-innovation product, to improve our built environment and acoustic wellbeing!

TRIMSOUND Technical Datasheets launched ...and product catalogue to follow shortly

We are very pleased to announce the launch of our TRIMSOUND technical datasheets. The datasheets present a comprehensive record of the properties and technical performance of the "TRIMSOUND" and "TRIMSOUND-plus" products, and they have been produced to inform designers and specifiers. The TRIMSOUND team have also been hard at work producing a TRIMSOUND catalogue which will be released in February and which will be available to download from the project website. The catalogue will introduce the range of TRIMSOUND products, explain their performance and benefits, and provide extensive details of how TRIMSOUND and TRIMSOUND-plus can be integrated with common constructive solutions in order to provide improved sound attenuation and/or thermal capacities via the phase change material within TRIMSOUND-plus.



The datasheets are available to download from the project website here: www.rewastee.eu/information/
The TRIMSOUND product catalogue will be available from the same location from February.

Successful industry workshop held in Barcelona



The REWASTEE team held an important workshop in Barcelona on the 14th December 2016 to present the REWASTEE product range and promote its applications and benefits to the Spanish construction market. The event, which was hosted by the REWASTEE co-patent holder the University of Barcelona, was attended by local architects, designers, construction professionals and academics. Similarly to the previous UK-based stakeholder workshop, this event was equally successful in generating lots of excitement about the products, their use and providing engaging and useful discussions with key industry players. Comments received included:

"What stands out is the reprocess-ability of the product in the end-of-life"

"TRIMSOUND density is very similar to commercial product. However, the main advantage is EAFD dust recyclability"

TRIMSOUND... high performance thermo-acoustic construction products (using recycled content)



TRIMSOUND pilot installation completed!

The project recently reached another exciting and significant milestone with the pilot retrofit installation of TRIMSOUND membrane in a property in Spain. The property, which is owned by FCC Construcción was suited to the demonstration as it is situated at one of FCC's industrial sites which presents a noisy external environment. The installation was completed quickly and easily and the TRIMSOUND is doing a great job in reducing airborne noise pollution as FCC report below:

"[FCC Construcción] TRIMSOUND is a synthetic sheet membrane for acoustic and thermal insulation which can be used in building construction and refurbishment. Its high density has led to good acoustic performance in-use, even though the material is only of minimal thickness. In the pilot installation that we conducted, we found that the TRIMSOUND sheet was easy for our installers to handle. As the material is provided in rolls, it enables easy cutting, making it easy to adapt the sheet to diverse applications. No significant or unusual problems were identified during the installation process. To sum up, the installation of the material was quick and straightforward, and we have been very satisfied with the material's performance and the results obtained"

Installing TRIMSOUND – a step by step guide

The TRIMSOUND acoustic membrane is available complete with adhesive backing to facilitate easy-fixing to materials including wood, metal, insulation or gypsum plasterboard. The following images show TRIMSOUND being installed in a wall.



Wall being measured, in preparation for lining with plasterboard and TRIMSOUND



Standard plasterboard sheets to which TRIMSOUND will be easily lined.



Thermal insulation can be fitted prior to the TRIMSOUND installation.



TRIMSOUND layer with its adhesive backing layer



TRIMSOUND layer being lined to plasterboard. 600mm / 1200mm widths also available.



The TRIMSOUND lined plasterboard ready to be fitted to the wall face.

The TRIMSOUND product range

TRIMSOUND:	acoustic sheet (3.5 or 5 mm) with adhesive backing
TRIMSOUND PLUS:	acoustic sheet (3.5 or 5 mm) incorporating phase change material
TRIMSOUND COMPLEX:	TRIMSOUND or TRIMSOUND PLUS pre-bonded to mineral wool or gypsum board
TRIMSOUND BAND:	a 50 mm band with adhesive backing

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TRIMSOUND – commercial opportunities

MARKET POTENTIAL

How much dust? Europe is the second largest steel producer worldwide with a production of approximately 165 million metric tons annually. Given that about 40% of steel production uses Electric Arc Furnace (EAF) which results in about 15kg EAF dust (EAFD) per ton of steel production – approximately 1 million tons of EAFD (500,000m³) is ending up in landfills. That's a lot of dust! Loaded onto 15T trucks, ~60,000 trucks are needed to transport EAFD from steel factories to recycling points or instead to rail cars or ships (where they are transported again). In a queue (end to end), these 60000 trucks would stretch from Barcelona past Milan all the way to Venice (1200 km).

How much membrane? About 30% of EAFD has low zinc content making it less attractive for zinc extraction processes. Targeting this 30% (300,000 tons of EAFD), we can produce 75 million m² of the standard TRIMSOUND 3mm product. That would cover 75 km² or almost all of Paris. At current market prices of similar products, this equates to an approximate €500 million annual turnover opportunity.

Can we use it? Assuming 250m² for a household installation, annual production of 75 million m² would equate to 300,000 households. Europe has approximately 220 million households (ref: Eurostat). The EU target for renovation is 3% (6.6 million homes per annum). The EU is also adding ~2 million new households to its housing stock each year. Not counted in this statistic are replacement homes (demolition and new construction). In addition, there are commercial and industrial buildings where TRIMSOUND can be applied. So, yes, we can use it!

Sales & Distribution Agreement - Italy

Located near Barcelona, project partner Trimdelsion Trade is the manufacturer of TRIMSOUND. Taking its first step toward the internationalization of the TRIMSOUND family of products, Trimdelsion Trade has reached an agreement with R2M Solution (R2M) for sales and distribution in Italy. R2M (Research to Market) specializes in the commercialization of new technologies and is located in the city of Pavia near Milan. Thomas Messervey, CEO of R2M Solution comments:

"New norms related to energy efficiency and acoustic performance point to a growth scenario for these types of solutions in Italy. In addition, Italy has a proud history of steel production and the Italian recycling point for EAFD has taken a keen interest in our work. We look forward to seeing TRIMSOUND on Italian dwellings in the near future."



Eric Torres (left) of Trimdelsion Trade and Thomas Messervey (right) of R2M Solution formalize agreement for product sales in Italy

TRIMSOUND signs with first retailer

TRIMSOUND will soon be available through DeCinque Linear House in San Salvo, Italy. Part of the DeCinque Group (who build and construct homes and offer support for the thermal and acoustic isolation of homes), DeCinque Linear House started in 1978 and has become a leading construction retail center (<http://www.de5linearhouse.it/>).



Why TRIMSOUND?

Feedback we're receiving from client interviews have led us to better understand our unique selling points.

- Doesn't smell
- Doesn't crack
- All temperature friendly – still pliable in the winter and not "gummy" in the summer
- Customizable thicknesses
- A 2mm product is really 2mm and not 1.8mm.

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TRIMSOUND... high performance thermo-acoustic construction products (using recycled content)



EC Project Officer visits REWASTEE team at Eurecat laboratory !



Pictured above: Blanca Sáez, Project Officer, Eco-Innovation team, European Commission examining a range of example constructive solutions comprising the REWASTEE product range

The REWASTEE team held an important meeting with the European Commission, Eco-Innovation Project Officer, Blanca Sáez on the 21st October 2016 at the Eurecat laboratory, Cerdanyola del Vallès, Barcelona, Spain. The project officer had the opportunity to get 'hands on' with the innovative REWASTEE flexible acoustic membrane products and sample constructive solutions.



Pictured above: REWASTEE project co-ordinator Biotza Gutiérrez (Eurecat) showing the REWASTEE membrane to Blanca Sáez, Project Officer, Eco-Innovation team, European Commission, whilst explaining the environmental credentials and acoustic properties.

Other events / activities

In October, the University of Barcelona and University of Lleida attended EuroSun2016 and had the opportunity to discuss the REWASTEE project with some of the participants. EuroSun2016 is the International Conference on Solar Energy for Buildings and Industry.

On 10 November 2016, NOBATEK presented some of their European projects, including REWASTEE, during the 20th anniversary of the ISA BTP (Aquitaine Building and Public works Institute). The event, which was held in Anglet, France, included conference sessions on innovation in architecture and engineering, and a workshop on the challenges of construction for the public sector.

Up Next: Construction Solutions

The membrane has proven a success. What's next? One step is working with leading construction material suppliers to integrate TRIMSOUND into prefabricated roofing and wall applications. Discussions are underway. Another step is to expand the use of this membrane to additional sectors outside of construction. We hope you'll be reading more about the TRIMSOUND membrane in the near future!

A final word

The REWASTEE team is extremely grateful to the European Commission Eco-Innovation scheme for supporting the REWASTEE project and making the development of this innovative product possible. We also wish to express our thanks to all the partners and stakeholders who engaged with and supported the project, providing their valuable feedback and advice.

Please see our website for more details: www.rewastee.eu

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