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THE ISOLATOR

Warm greetings, valued readers!

As the days grow shorter and the air carries a hint of the impending festive season, we welcome you to the July 2024 edition of the Kinetics Group newsletter. This month, we have an abundance of captivating content to share, showcasing the remarkable projects and cutting-edge technology solutions that define our commitment to excellence in the world of HVAC, vibration isolation, and acoustic treatments.

Our newsletter will be a gallery of noteworthy projects that highlight the diversity of our capabilities. Each project demonstrates our unwavering dedication to providing solutions that enhance the lives of those who inhabit these spaces.

Additionally, on our YouTube channel, we will be reviewing our FLSS Seismic Control Restrained Spring Isolator, which provides exceptional vibration isolation, effectively reducing the transmission of vibrations and noise from HVAC equipment to the building structure.

AQUILA SCHOOL EXTENTION, DUBAI



Established in 2018, The Aquila School cultivates young minds in Dubai with a unique blend of British and International Baccalaureate curriculums. Nestled in the vibrant Dubai land community, the school caters to pupils from Early Years Foundation Stage 1 to Year 12, fostering a love of safe and happy learning while equipping them with the knowledge and skills for future.

Kinetics Middle East LLC partnered with MS. INTERMASS CONTRACTING to supply Acoustic Underlay for the project.

INTERMASS CONTRACTING carries out building and infrastructure works across a wide variety of sectors in the GCC, from residential and educational buildings to hotel, military, and government projects.

MARASSI GALLERIA MALL, BAHRAIN



This landmark development is set to become a premier shopping and entertainment destination, featuring a blend of luxury retail, dining, and leisure experiences. Contributing to this iconic project, ensuring that every aspect meets the highest standards of quality and innovation. Presenting the unique features and cutting-edge technologies that make Marassi Galleria a standout in the region.

Kinetics Group LLC assisted by Supplying the Floating Floor System for the project for the Favor of MS. MOHAMMED FAKHROO & BROS.

Mohammed Fakhroo and Bros operate across consumer electronics & domestic appliances, lighting products, security and public address systems, medical equipment and construction/building materials. Within these trading units, the company has set out to offer leading brands of quality through different distribution channels, backed by a strong service facility, upholding its commitment to total customer satisfaction.

TECHNICAL DISCUSSION: ACOUSTIC ANALYSIS FOR FLOATING FLOOR DESIGN

Introduction: In the design of floating floors, conducting a comprehensive acoustic analysis is essential to ensure optimal sound insulation and performance. This analysis involves evaluating various factors that influence the acoustic properties of the floor system, ultimately leading to a design that meets the specific noise control requirements of the project.

Key Considerations in Acoustic Analysis:

➤ Noise Sources:

- **Impact Noise:** Sounds generated by footsteps, furniture movement, or any object impacting the floor.
- **Airborne Noise:** Sounds transmitted through the air, such as conversations, music, or traffic noise.

➤ Building Structure:

- **Floor Composition:** The materials and layers that make up the floor, including underlays, screeds, and final floor finishes.
- **Supporting Structures:** The characteristics of the subfloor and any existing insulation.
- **Room Geometry:** The shape and size of the rooms, as well as the placement of walls, doors, and windows.

➤ **Material Properties:**

- **Density and Thickness:** The mass and dimensions of the materials used in the floating floor system.
- **Elasticity and Damping:** How materials respond to vibrations and their ability to absorb sound energy.

Inputs for Acoustic Analysis:

➤ **Material Data:**

- Acoustic properties of all materials involved, including absorption coefficients, transmission loss values, and damping characteristics.
- Mechanical properties such as density, elasticity, and thickness.

➤ **Structural Layout:**

- Detailed architectural drawings and specifications of the building structure.
- Information on existing sound insulation measures.

➤ **Usage Scenarios:**

- Anticipated foot traffic and activity levels in different areas.
- Specific noise control requirements based on the building's function (e.g., residential, commercial, educational).

Results of Acoustic Analysis:

➤ **Sound Insulation Performance:**

- Quantitative measures of the floor system's ability to reduce impact and airborne noise, typically expressed in decibels (dB).
- Identification of weak points and areas where additional insulation may be required.

➤ **Frequency Response:**

- Analysis of how the floating floor system performs across different frequency ranges.
- Tailoring of materials and design to target problematic frequencies, such as low-frequency impact sounds.

➤ **Vibration Control:**

- Assessment of the floor's ability to dampen vibrations and prevent sound transmission through structural elements.

➤ **Compliance and Standards:**

- Verification that the design meets relevant building codes and acoustic performance standards.
- Recommendations for adjustments to achieve compliance if necessary.

Benefits of Acoustic Analysis:

➤ **Enhanced Sound Comfort:**

- Ensures a quieter and more comfortable environment by effectively reducing both impact and airborne noise.
- Improves the overall acoustic quality of the space, contributing to occupant well-being and satisfaction.

➤ **Optimized Material Use:**

- Helps in selecting the most effective materials and configurations, potentially reducing costs by avoiding over-specification.
- Ensures that materials are used efficiently to achieve the desired acoustic performance.

➤ **Design Validation:**

- Provides a scientific basis for design decisions, increasing confidence in the final floor system's performance.
- Identifies potential issues early in the design process, allowing for adjustments before construction begins.

➤ **Regulatory Compliance:**

- Ensures that the floating floor design meets all relevant acoustic regulations and standards, avoiding potential legal and operational issues.
- Facilitates smoother approval processes with building authorities and clients.

➤ **Longevity and Durability:**

- Contributes to the long-term durability of the floor system by addressing factors that could lead to acoustic degradation over time.
- Promotes the use of durable materials and robust construction practices.

Conclusion:

Conducting an acoustic analysis as part of the floating floor design process is crucial for achieving superior sound insulation and overall acoustic performance. By carefully considering noise sources, building structure, material properties, and installation details, the analysis provides valuable insights that lead to optimized designs. The results not only enhance sound comfort and material efficiency but also ensure regulatory compliance and long-term durability, ultimately contributing to the success of the project.

For further details or to schedule an acoustic analysis for your project, please contact our technical team by emailing us at sales@kineticsgroup.ae.



Product Spotlight: Kinetics Middle East Acoustic Underlay

Introduction: In our ongoing effort to bring innovative and high-quality solutions to our customers, we are pleased to highlight the acoustic underlay products from Kinetics Group LLC. These products are designed to meet the demanding acoustic requirements of modern construction projects, ensuring superior sound insulation and comfort.

Uses:

Kinetics Group LLC acoustic underlays are designed for a variety of applications, including:

- **Residential Buildings:** To reduce noise transmission between floors and enhance living comfort.
- **Commercial Spaces:** Ideal for offices, hotels, and retail environments where noise control is crucial.
- **Educational Institutions:** Effective in classrooms, libraries, and lecture halls to create a conducive learning environment.
- **Healthcare Facilities:** Ensuring quiet environments in hospitals and clinics, promoting patient rest and recovery.
- **Sports Facilities:** Used under gym floors to minimize impact noise and enhance acoustic performance.

Advantages:

- **Superior Sound Insulation:** The primary benefit of these acoustic underlays is their ability to significantly reduce impact noise, ensuring quieter and more comfortable environments.
- **Durability and Longevity:** Made from high-quality polyurethane foam, these underlays offer exceptional durability, maintaining their acoustic properties over time.
- **Eco-Friendly:** Many of the acoustic underlay products incorporate recycled materials, making them a sustainable choice for environmentally conscious projects.
- **Easy Installation:** The underlays are designed for straightforward installation, often featuring adhesive backing for quick and secure application.
- **Versatility:** Suitable for use under various types of flooring, including hardwood, laminate, carpet, and tile.
- **Moisture Resistance:** The material is inherently resistant to moisture, reducing the risk of mold and mildew growth.
- **Enhanced Comfort:** In addition to sound insulation, the underlays provide a cushioning effect, enhancing underfoot comfort and reducing strain on flooring surfaces.

Conclusion:

Kinetics Group LLC acoustic underlays represent the pinnacle of sound insulation technology, combining superior performance with sustainability and ease of installation. By incorporating these high-quality underlays into your projects, you can ensure enhanced acoustic comfort and longevity, making them an excellent choice for any construction or renovation endeavor.

For more information or to request a quote, please contact our sales team or visit the Kinetics Middle East [website](#).



Kinetics YouTube –

KINETICS MIDDLE EAST LLC: Installation: FLSS Seismic Control Restrained Spring Isolator

We are excited to showcase our video on the installation of the Kinetics Group Vibration Isolator Model [FLSS] Seismic Control Restrained Spring Isolator. This state-of-the-art isolator is designed to provide superior vibration and seismic control, ensuring the safety and stability of your structures. In this video, we take you through a step-by-step guide on the installation process. Enjoy Watching!

<https://www.youtube.com/watch?v=9fBY993Nf84>



#knowmore

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“ What our Customers
ARE SAYING, ”

. "I was impressed by the Kinetics' responsiveness to inquiries and submittals, as well as their coordination.

-Aparna Githin (Bombay Contracting LLC)

"I was satisfied with the overall product and service provided by the team from Kinetics."

-Engineer Hijas Chattikkal (Al Qoze Electromechanical LLC)

"During my time dealing with Kinetics, I was impressed by their product quality, logistical assistance, and post-sales support."

-Aryln Llanita (Liwa Electromechanical Works)

"I was satisfied with the overall correspondence and professionalism from Kinetics' staff."

-Ahmed Sarjun (Izone Electro Mechanical Contractors LLC)

