

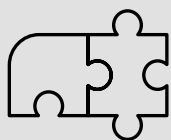


Vistamaxx™ performance polymer

## Experience superior anti-slip performance and comfort with exercise mats enhanced with Vistamaxx™ performance polymer



Softness



Compatibility



Anti-slip

Data and results presented herein apply specifically to the noted application under this fact sheet. Your results may differ depending on factors such as operating conditions, equipment and materials used.

### Challenge

Exercise mats are important auxiliary tools during exercising, and their performance directly affects the comfort, safety and effect of exercise. Consumers increasingly expect to have a exercise mat with good anti-slip and cushioning properties.

Chinli Plastic Industrial Co., Ltd, a leading manufacturer in the EVA foam industry, aimed to develop a new series of exercise mats to tackle this market trend. As the current modifiers available in the market — like POE and EPDM — are not positioned as friction enhancers, and the barium sulfate in the formulations will decrease tensile strength due to higher density, choosing a correct polymer modifier has become one of Chinli's priorities. Compatibility with EVA is a key consideration to help minimize processing changes that might be required for the new solution.

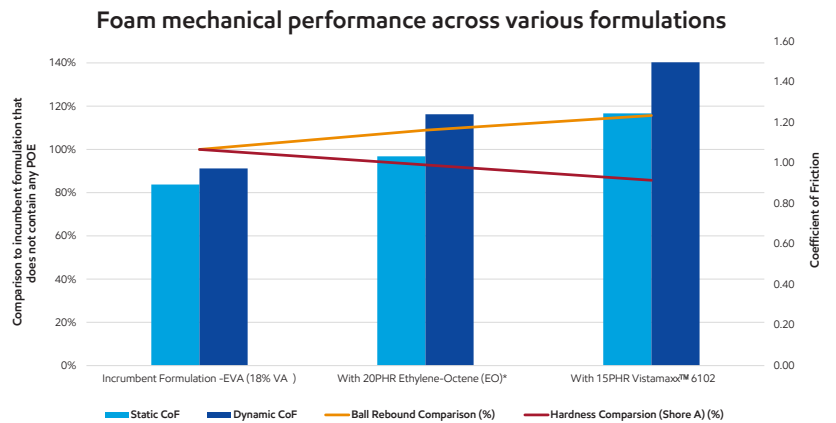
### Solution

By incorporating Vistamaxx™ 6102 into its EVA formulations, Chinli developed a new generation of exercise mats with minor processing changes. These mats provide unparalleled softness and superior cushioning, ensuring maximum comfort during workouts. Additionally, they offer significantly improved anti-slip properties, enhancing safety and stability compared to current exercise mats.

## Results

**Improved anti-slip performance:** Coefficient of friction testing conducted by ExxonMobil showed significant improvements in mats containing Vistamaxx™ 6102. Mats with 15 parts per hundred rubbers (PHR) of Vistamaxx exhibited a 91% improvement in static coefficient of friction (COF) and a 54% improvement in dynamic COF compared to the incumbent formulation. They also outperformed mats with 20 PHR of other polyolefin elastomer (POE), showing a 29% improvement in static COF and a 31% improvement in dynamic COF.

**Softer and better cushioning:** The foam achieved a significantly softer texture, resulting in superior cushioning and greater comfort and support compared to current mat offerings. This enhancement is ideal for high-quality exercise mats that require good cushioning attributes.



\*Density 0.868 g/cm<sup>3</sup>, Melt Index (190°C/2.16 kg) 1.0 g/10 min

“It’s great to work with the ExxonMobil Signature Polymers team. They are always thinking from my side and providing valuable solutions. With the help of Vistamaxx™ performance polymer, the performance of our new exercise mat improved significantly, especially anti-slip properties and the comfort provided. This collaboration aligns with Chinli’s goal of delivering high-quality, reliable products to customers.”

Tom Hsu, Technical Director  
Chinli Plastic Industrial Co., Ltd

Test	Test method based on
Static coefficient of friction	ExxonMobil method
Dynamic coefficient of friction	ExxonMobil method
Hardness (Shore A)	ExxonMobil method
Ball rebound	ExxonMobil method

\*Data from ExxonMobil internal testing (R2407-021868)



Bring your impossible

ExxonMobil Signature Polymers was born from the belief that people fuel progress. From automotive and construction to packaging, agriculture, industrial, and beyond, we leverage the scale and reach of ExxonMobil to deliver the insights and innovations that empower our diverse, global partners to take their businesses to new heights. We continuously work to provide the listen-first, service-driven, game-changing collaboration that unlocks opportunities for our partners and advances their business goals.



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