

Are you in on the super material market trend? Find out how Cymat is making metal – smart.

The modern era is being defined by the use of modern innovative materials that can be fine tuned for specific uses. This can mean light weighting materials for electric vehicles, materials that can absorb various blasts, or modern materials that bring beauty and sophistication.

One company is leading the innovation charge with their innovative and customized aluminum foam solutions. That company is Cymat Technologies Ltd. (TSXV: CYM) (“Cymat”). Cymat is an innovative materials technology company that manufactures and sells customized Stabilized Aluminum Foam (SAF) solutions for international customers and partners. Cymat’s products are suitable for use in a broad range of military, automotive, industrial and architectural applications.

What is aluminum foam?

Aluminum foam consists of about 5-25% of the material volume being aluminum metal and the remaining volume is occupied by pores. Aluminum foam has high durability, high strength to weight ratio, large surface area to volume ratio, lightweight, and excellent energy absorbance and acoustic isolation properties. Due to these physical properties, aluminum foam finds significant adoption across mechanical, architectural, and automotive applications.

Market forecast

The global aluminum metal foam market size was US\$67.6M in

2020 and is forecast to grow to US\$96.5M by 2027, at a CAGR of 4.7%. There is a developing interest in aluminum foams in car and transportation businesses attributed to their high strength, low weight, and toughness, which is projected to support the market expansion.

Cymat's innovative SAF material helps with light weighting as well as safety (occupant protection)



Source: Cymat Technologies

Cymat has two divisions:

1) SmartMetal™ – This division sells lightweight energy absorbing material which can also be designed to dampen down noise and vibration, be non-combustible, and be buoyant. One example is stabilized aluminum foam products which are effective at absorbing large amounts of energy. Cymat states: “Each products density can be tuned to deliver effective blast attenuation from an assortment of present and future threats. In combination with composite systems, SmartMetal™ can be configured to neutralize multi-threat events.”

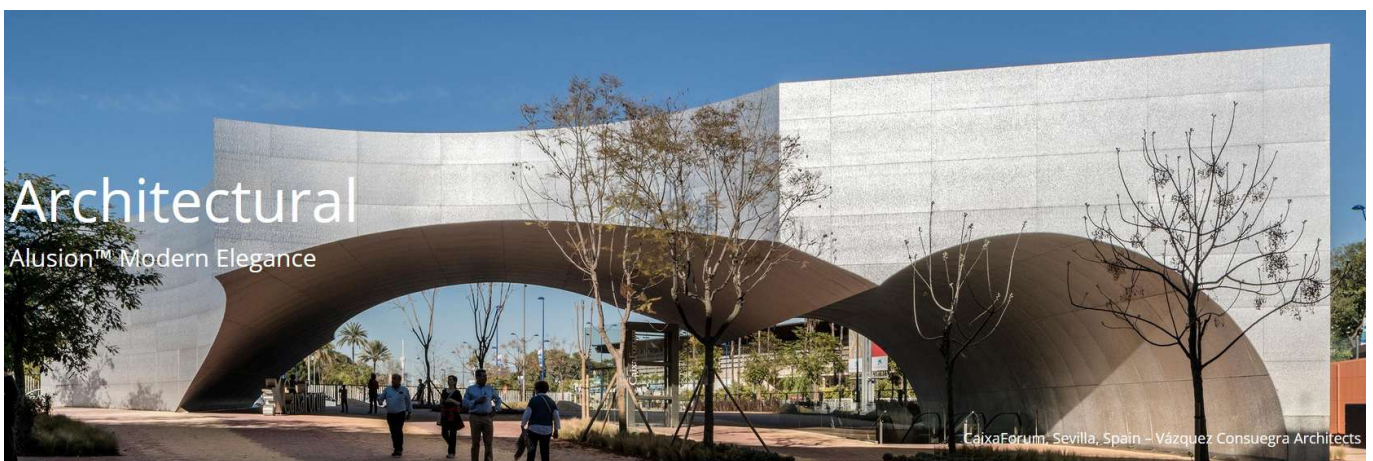
Cymat's SmartMetal™ convincingly demonstrates the ability to attenuate high speed blast impulses



Source: Cymat Technologies

2. Alusion™ – This division sells stabilized aluminum foam that brings a modern beauty and sophistication. Alusion™ panels are specified mostly for facades, interior walls, ceilings or flooring applications; for both interior and exterior applications. The products are designed to bring multiple benefits such as both positive aesthetic and acoustic properties.

Cymat's Alusion™ products are designed to achieve modern elegance



Source: Cymat Technologies

Cymat's business model

Cymat operates in a 26,000 sq. ft. manufacturing facility located in Toronto, Canada, and has just completed a JV facility in Miranda de Ebro, Spain. Cymat utilizes a global agency marketing model and a global distributor network to market and sell their products. Cymat has well established distribution relationships covering North and South America, U.K., Europe, Korea and the Middle East and a recent distribution agreement reached in China. Alusion™ is advertised on the ArchDaily web-based architecture platform which receives 13.5 million visitors per month and targets builders, architects and designers seeking material ideas and design tools.

Regarding sales Cymat stated:

“Cymat is expecting strong growth specifically from its Chinese distributor who’s stocking orders to date for fiscal 2021 reflect a high level of confidence in demand for Alusion™. Moreover, these stocking orders are over and above this distributor’s current major project sales pipeline. In the US, Cymat received a large order to outfit a global tech giant’s new head office campus as well as a high-profile condominium project in Manhattan. These orders combined with other European and US-based project orders indicate that Alusion™ sales for the first half of this fiscal year will significantly surpass Cymat’s total annual sales from last year.”

A recent C\$4.3M equity raising will be used to undertake production capacity and productivity upgrades at Cymat’s plant to support both growths in the Alusion™ product line and anticipated growth from SmartMetal™ initiatives. Cymat will also use these funds to expand its business development, primarily in the automotive sector and for general corporate purposes.

Closing remarks

Cymat's aluminum foam has enormous potential for adoption especially in the building and architectural industries. Then of course there is automotive and notably the burgeoning EV industry, and the military, where lightweight and strength are key components. Of course, the list of applications for super materials such as aluminum foam are endless.

Cymat Technologies currently trades on a market cap of just C\$32M, suggesting there is potentially huge upside should sales take-off and significant profits follow. One to follow closely in 2021.