

# **CASE STUDY**

AEROSPACE

Elevating Contamination Control with Dycem's Sustainable, Effective and Cost-Efficient Solutions.

## INTRODUCTION

Pentaxia delivers a complete composite solution and is proud to work with many blue-chip companies across a diverse array of industries, encompassing aerospace, luxury automotive, medical, motorsport, and rail. Their expertise spans the entire supply chain, from the initial stages of tooling design to manufacturing, component production, and the final touches of surface finishing. They have a strong reputation in the market for on-time quality manufacturing and with AS9100 Rev D and ISO9001 accreditation, they are often the first choice for their high-profile clients.

To ensure exceptional quality, Pentaxia maintains stringent standards, with an unwavering commitment to maintaining contaminant-free manufacturing and production areas. Pentaxia recognizes the importance of controlling contamination at floor level and chose Dycem to help them improve their current method of managing floor-level contamination.

#### CHALLENGE

Pentaxia's main requirement for contamination control is caused by foot and heavy-wheeled traffic entering foreign object debris (FOD) control areas. These FOD areas are where strict measures are taken to prevent the introduction of foreign objects or debris that could potentially damage or contaminate products.

Having previously depended on peel-off tacky mats, Pentaxia recognized the necessity for an upgrade in functionality and also aesthetics. Their goal was to elevate the standards of floor-level contamination control, seeking a solution that excelled in performance and also enhanced the overall visual appeal of their operational spaces.



#### **SOLUTION**

Pentaxia discovered Dycem through an intense search process and made a strategic decision to embrace a contamination control transformation. They recognized that Dycem offered superior contamination control as well as presented a compelling case for cost savings and environmental responsibility. Dycem's reusability aligned with Pentaxia's commitment to a more sustainable solution.

After an initial site survey and recommendations made by one of Dycem's contamination control specialists, Pentaxia opted to implement two Dycem WorkZone mats at control points to entry for material processing areas. Dycem WorkZone mats are made to withstand heavy-wheeled traffic while collecting and retaining up to 99.9% of particles from shoes and wheels and up to 75% of airborne contamination from entering controlled environments. This suited Pentaxia's needs as they frequently had heavy-wheeled trolleys going in and out of the areas.

### **RESULTS**

By strategically placing Dycem WorkZone mats to accommodate traffic flow at these crucial FOD control points, Pentaxia is reducing the risk of contamination introduced by shoes and wheels into their vital material processing areas. Dycem's static dissipative properties further enhance this proactive approach by providing an additional layer of defense against Electrostatic Discharge (ESD), reinforcing the effectiveness of Dycem.

Pentaxia is thrilled with the performance of the Dycem mats, saying "The quality is great and the system captures contamination well." Compared to peel-off mats, they have found Dycem to be much more aesthetically pleasing and would recommend Dycem as their chosen solution for contamination control at floor level.

#### **ABOUT PENTAXIA**

As a proud family-run business, Pentaxia is ambitious, adventurous, creative, and innovative. From composite tooling to component manufacturing and surface coating, Pentaxia can deliver a complete composite solution under one roof.

"We opted for Dycem as the system presented not only enhanced contamination control, but also significant cost savings and improved sustainability."

-Nick Price, Materials Manager, Pentaxia





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