

Benefits of Custom Fabric Structures for Aviation & Military May 2019 Webinar Q&A

Q. How do Legacy buildings perform in high wind or snow situations? Has any testing been done for this?

Legacy buildings are custom engineered for wind and snow loads in each location. The engineering methods we use are proven and accepted in jurisdictions around the world. We have also completed the testing associated with Florida Product Approval. In addition to this laboratory testing, we have practical experience with buildings around the world in high wind and snow areas.

Q. Can these buildings be insulated to meet the energy code?

Yes. One of the great benefits of a fabric building is the airtight nature of the fabric, which will minimize air leakage. In an insulated building, there is an R-13 thermal break between the roof frame and the inside of the structure in addition to the required amount of insulation elsewhere in the roof (R-30 or more), which provides an extremely efficient insulation system. This helps us meet the insulation requirements for any of the eight climate zones within the energy code.

Q. Can you install large aircraft doors such as vertical lift fabric doors or bottom rolling doors?

Yes. In a Legacy building, the loads of the door are transferred to the building frame. Because every structure we design is custom, we are able to add any number or size of door without slowing down the process.

Q. Can you add hanging loads to support things like overhead cranes to the building?

Yes. We have extensive experience adding hanging loads to the building.

Q. What classification category does the fabric building fall under in NFPA 409?

NFPA classifies membrane structures as Group IV. This means that in most instances the fire suppression requirements may be less when compared to a metal building or conventional building. A fabric membrane by nature is a non-conductor, so it doesn't hold or trap the heat the same way a metal building would. A primary benefit of this classification is lower cost, both during installation and maintenance.

Q. Are your buildings typically considered temporary buildings or permanent buildings?

All our structures are designed as permanent, however they are relocatable.

Q. What is the building classification of a fabric building in the Building Code?

Legacy buildings are classified as Type 2B based on the IBC code in the United States. Type 2B is a non-combustible building with a zero-hour rating.



CUSTOM TENSION FABRIC BUILDINGS

Q. How much light comes into the building?

That depends on the color and weight of the fabric. White ExxoTec™ has about 12% translucency, which allows for a lot of brightness inside the building.

In an insulated building, all the light is blocked out. Blackout fabric is also available to prevent light from coming in or going out of the building.