Strongwell designed and fabricated an all-fiberglass test building for the John Fluke Manufacturing Company of Everett, Washington, a company that manufactures equipment to calibrate electronics.

Engineers at John Fluke chose DURASHIELD® fiberglass foam core building panels, EXTREN® fiberglass structural shapes and FIBREBOLT® fiberglass studs and nuts because these materials are non-conductive and non-magnetic and do not affect tests.

The DURASHIELD® panels are comprised of fiberglass reinforced polyester skin over 4 lbs./ft.³ rigid closed cell polyurethane. The insulating properties of DURASHIELD® (R value of 21) and the low maintenance of fiberglass were important factors, because of cold winter temperatures in Washington.

The erection of the structure ran smoothly according to engineers at Fluke requiring only a forklift to place DURASHIELD® panels and 24” EXTREN® I-beams. FIBREBOLT® fasteners were used and joints of the DURASHIELD® panels and bolt holes were sealed using a polyurethane caulk, an elastomeric tape and a polymer coating.

Installed in 1991, the building is functioning as designed without any problems and all materials have met the engineers’ expectations. Furthermore, the fiberglass materials stand up to the extreme Washington weather without painting or other maintenance.

TECHNICAL DATA

Product: All-Fiberglass Building
Process: Pultrusion
Materials: DURASHIELD® foam core building panels
Sizes: Overall building size - 20' x 36'
DURASHIELD® panels - 3" thick x 24" wide
EXTREN® Series 525 structural shapes:
  24" x 7-1/2" x 3/4" I-beam
  6" x 3/8" Wide flange beam
  4" x 3/8" Angle
  6" x 1/4" Angle
  3" x 1/4" Angle
For: John Fluke Manufacturing