

Materials List for

Determination of the Mechanical Properties of Flexible Connectors for Use in Insulated Concrete Wall Panels

Fray F. Pozo-Lora¹, Marc Maguire²

¹Civil & Environmental Engineering Department, Pontificia Universidad Catolica Madre y Maestra ²Durham School of Architectural Engineering and Construction, University of Nebraska-Lincoln

Corresponding Author

Marc Maguire

marc.maguire@unl.edu

Citation

Pozo-Lora, F.F., Maguire, M. Determination of the Mechanical Properties of Flexible Connectors for Use in Insulated Concrete Wall Panels. *J. Vis. Exp.* (188), e64292, doi:10.3791/64292 (2022).

Date Published

October 19, 2022

DOI

10.3791/64292

URL

jove.com/video/64292

Materials

Name	Company	Catalog Number	Comments
Battery-powered Drill			
Concrete Screws			50 mm long commercial concrete screws.
Data Logger			Capable of sampling at a frequency of at least 10 Hz.
Double Shear Test Specimen			Fabricated according to the dimensions in the testing protocol.
Four Linear Variable Displacement Transformer			With at least 25 mm range for Fiber-reinforced Polymer (FRP) connectors and 50 mm for ductile steel connectors.
Hydraulic Actuator			With at least 50-Ton capacity.
Lifting anchors rated at 1 Ton			
Load Cell			With at least 50-Ton capacity.
Load Frame			Capable of resisting the forces generated by the testing specimen.
Polytetrafluoroethylene (PTFE) Pads			3 mm x 100 mm x 600 mm
Ratchet Strap			At least 50 mm wide.
Steel angle			
Steel Plate			Two 20 mm x 150 mm x 150 mm steel plates.
Steel Washers			Capable of producing a separation of at least 5 mm between the steel angle and the specimen.