

Materials List for:

Installation Method to Enhance Quality Control for Fiber Reinforced Polymer Spike Anchors

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URL: <https://www.jove.com/video/56886>

DOI: [doi:10.3791/56886](https://doi.org/10.3791/56886)

Materials

Name	Company	Catalog Number	Comments
Concrete			The concrete for support has a dosage made by the authors, and a strength class no lower than C40
SikaWrap anchor C	SIKA		This material has been used for the FRP spike anchors. SikaWrap Anchor C is a unidirectional, carbon fiber rope, sheathed in an elastic gauze. The gauze can be cut onsite to create a fan end that anchors CFRP fabrics and plates used in the structural strengthening of masonry and concrete.
Sikadur 330	SIKA		Impregnating resin, apt for manual saturation methods. The product was used for impregnating the anchor dowel before insertion
Sikadur 30	SIKA		Thixotropic, two part epoxy resin applied by spatula and therefore suitable for virtually any application, including overhead
Drill bit	Betazul		Drill bit employed to smooth the holes that was designed by the authors and developed by Betazul SA
Hammer drill	Hilti		Tool for the execution of anchor holes on masonry and concrete, for different drilling ranges
Wire brush	Hilti	Hit series	For the proper brushing of drilled holes of varying diameters and embedment depths
Blow-out pump	Hilti	Hit series	Manual blow-out pump
SikaWrap-230 C	SIKA		Unidirectional woven carbon fiber fabric for dry application process
Aluminium Bubble Roller	Fibre glast		For laminations where increased pressure is necessary to release air bubbles. They are straight across the width of the head and provide excellent air relief for nearly all applications.
Brush			For impregnation of FRP bundle and sheet
600 kN testing machine	Proeti	DI-CP/S	This is used for the shear test of anchors, in order to evaluate the efficacy of the proposed insertion method

Cable ties			Cable ties are needed to fasten the end of the anchor dowel in order to prevent fanning out of the fibers during insertion
Measuring tape			The measuring tape is necessary to control the embedment length as well as the diameter of the drill bit and hole clearance
Steel wire			Required to assist insertion
Rigid (steel) bar			A rigid bar of any material (in this case, it was made with a steel bar) is needed to control the embedment length