

Pull Out Strength of a 3.5 mm Bio-PushLock (AR-1926B)

Objective:

The objective of the testing was to determine the pull out force of the 3.5 mm Bio-PushLock from a polyurethane foam block that simulates cadaver glenoid bone.

Method and Materials:

3.5 mm Bio-PushLocks were used to fixate #2 FiberWire in 20 lbf/ft³ polyurethane foam block with a 3 mm thick 40 lbf/ft³ polyurethane foam laminate surface. This polyurethane foam block was chosen to simulate glenoid bone. The foam block was secured in an INSTRON material testing machine. The fixated strand of #2 FiberWire was loaded until failure of the construct occurred. The mode of failure and failure load were recorded.

Results:

The load at failure was **46.3 ± 2.0 lbf**. The mode of failure for all constructs was the #2 FiberWire slipping past the 3.5 mm Bio-PushLock.

Conclusion:

The load to failure for the 3.5 mm Bio-PushLock in polyurethane foam block, that simulates cadaver glenoid bone, is 46.3 +/- 2.0 lbf.

(Reference Document APT 389)