

# Stack Chairs - Testing

The following is an overview of the key structural tests in the ANSI/BIFMA X5.1-2002 Office Seating test standard. It is intended to provide a general understanding of the tests for office seating.

## Seating Durability - Cyclic

**Description** 125 lb load dropped 1" onto the seat 100,000 times  
165 lb force applied to both front corners of the seat 20,000 times

## Seating Strength

**Functional Load** 225 lb load dropped 6" onto the seat one time

**Proof Load** 300 lb load dropped 6" onto the seat one time

## Backrest Durability

**Description** 75 lb horizontal force applied to the backrest 120,000 times

## Backrest Strength

**Functional Load** 150 lb horizontal force applied to the backrest one time

**Proof Load** 250 lb horizontal force applied to the backrest one time

## Armrest Durability - Cyclic

**Description** 90 lb force applied simultaneously to each armrest 60,000 times

## Armrest Strength - Vertical

**Functional Load** 200 lb vertical force applied to the armrest one time

**Proof Load** 300 lb vertical force applied to the armrest one time

## Armrest Strength - Horizontal

**Functional Load** 100 lb horizontal force applied to the armrest one time

**Proof Load** 150 lb horizontal force applied to the armrest one time

## Leg Strength - Front

**Functional Load** 75 lb force applied to the end of the front leg one time

**Proof Load** 125 lb force applied to the end of the front leg one time

## Leg Strength - Side

**Functional Load** 75 lb force applied to the end of the front leg one time

75 lb force applied to the end of the rear leg one time

**Proof Load** 125 lb force applied to the end of the front leg one time

115 lb force applied to the end of the rear leg one time

## Tablet Arm Durability - Cyclic

**Description** 77 lb vertical force applied to the tablet 100,000 times

## Tablet Arm Strength

**Description** 150 lb vertical force applied to the tablet one time

