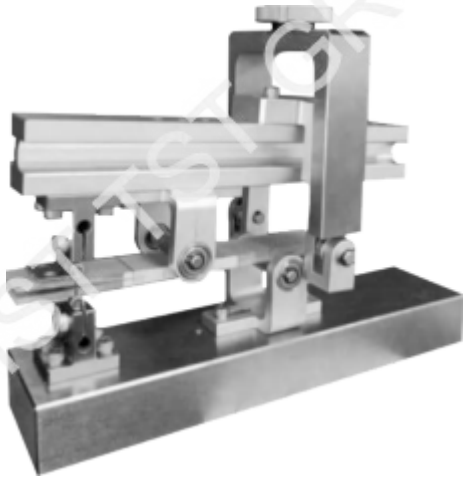
# ASTM D6671 Composite Fracture Toughness Testing

HST GROUP
Focus In Material Test

## Applications:

ASTM D6671 is a testing specification that determines the interlaminar fracture toughness of unidirectional fiber-reinforced composite materials at various Mode I (opening or tensile loading) and Mode II (sliding or shear loading) ratios using the Mixed-Mode Bending (MMB) test. The Mixed-Mode Bending test apparatus is used to split the laminate specimens to determine the delamination of fracture toughness. The test specimen is a rectangular, unidirectional laminated composite specimen, containing a non-adhesive insert at the midplane. The non-adhesive insert serves as a delamination initiator.



The width and thickness of each test specimen are measured, after which the delamination insert is marked. The length of the lever of the MMB apparatus is set to get the desired mode mixture. The specimen is placed and firmly fixed in the apparatus. Load is applied to the specimen. Applied force versus load displacement, as well as the length of the propagating crack, are recorded. Finally, the specimen is removed from the apparatus after the test.

## Parameter:

| Model | HST-ZJA502B |
|---|---|
| Standards | ASTM D6671 |
| Capacity | 0.5kN |
| Temperature | 0~40℃ |