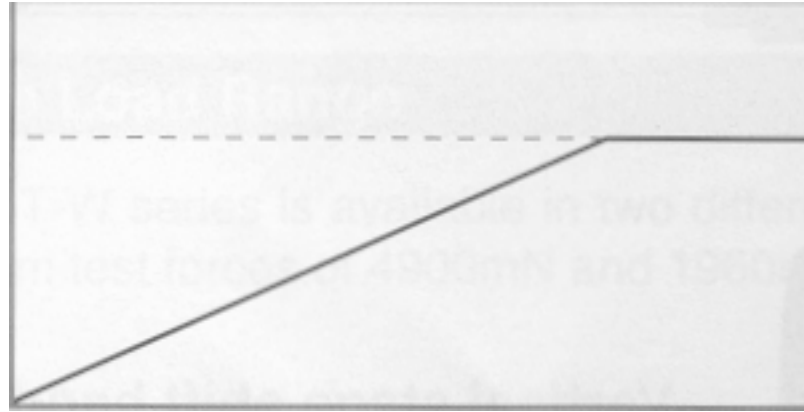


When a particle or fiber is selected as the specimen, force increased to the set point and the compression rupture strength is determined when the specimen breaks, or if the specimen does not break, the strength at time of specified deformation is determined. For other types of specimens, the test ends at the preset force point.

Test Force

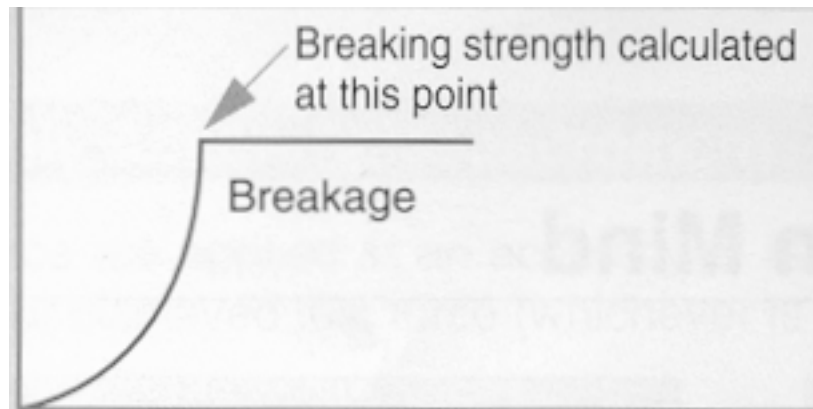
Max. test force



Time

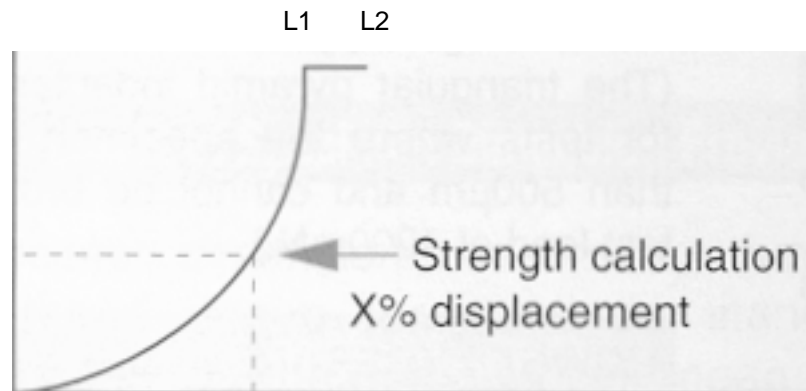
Loading Pattern

Test force



Compression displacement

Test force



Compression displacement

Breaking strength

Compression rupture strength is calculated at the breaking point using two parameters force at breaking point and diameter of the particle.

For particles $St(Sx)=2.8P/ (n \times d \times d)$

For fibers $St(Sx)=2P/ (it \times L \times d)$

St = Strength (MPa)

Sx = Reference strength (MPa)

P = Test force (N)

d = Diameter of particle or fiber (mm)

L = Fiber length (mm)

Rate of Change

The rate of change is calculated from the displacements at the beginning (Li) and the end (L2) of the load-hold time.

For particles and fibers:

Rate of change $Cp= (L2 - L1) /d \times 100$

Other specimens: Variation $Dp= L2 - Li$

Cp: Rate of change (%)

Dp: Variation (um)

d: Diameter of particle or fiber (um)

L1: Displacement at the beginning of load-hold time (um)

L2: Displacement at the end of load-hold time (um)