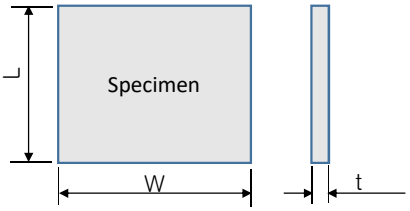
Test Method

■ Density (ASTM D3574)

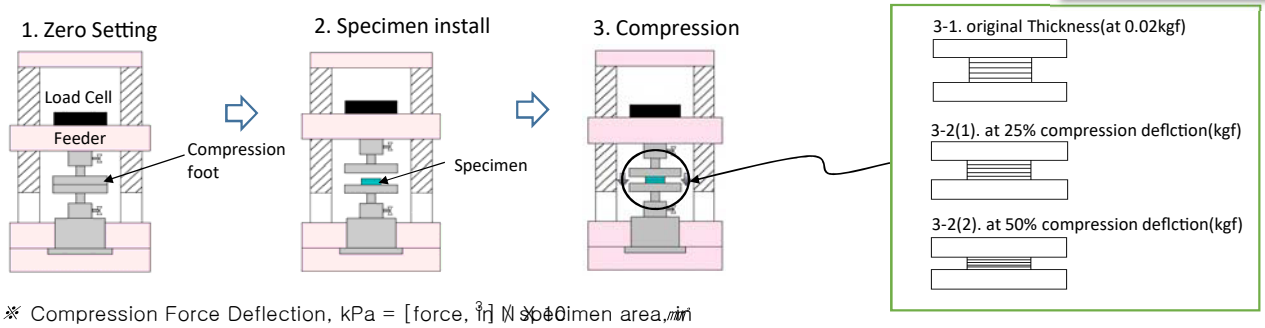


*Specimen size : 100㎜(W) x 100㎜(L)
*Calculation
Density = M / V [g/㎤]
where:
M = mass of specimen, g, and
V = volume of specimn, ㎤ = L x W x t

■ Compression Force Deflection (ASTM D3574)

◈ Specimen size : 25(or 50)㎜ x 25(or 50)㎜ x laminating of 10mm(t), unless otherwise specified.
◈ Environment : 23±2℃, 50±5%RH
◈ Compression speed : 5(or 4)㎜/min.
◈ # of specimens : Three specimens per sample shall be tested.
The value reported shall be the mean of those observed.
◈ Measurement : 30 seconds after placing the probe on the sample

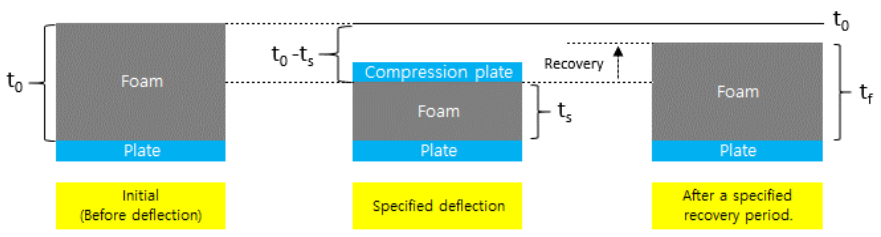
[Procedure]



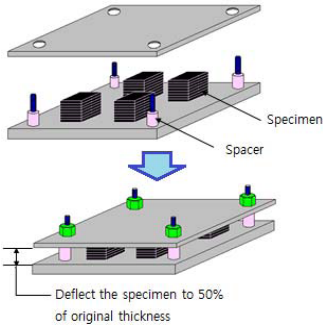
※ Compression Force Deflection, kPa = [force, ㎏f] ÷ Specimen area, ㎡

■ Compression Set (ASTM D3574)

◈ Specimen size : (1) 50㎜ x 50㎜ x 25mm(t) (ASTM D3574), unless otherwise specified.
(2) or 25㎜ x 25㎜ x laminating of 10sheets (t)
◈ Deflection Condition : A specified deflction(50%) of original T → 70℃, 22hrs → Recovery of the specimen for 30~40minutes at 23℃, 50%RH
◈ # of specimens : Three specimens per sample shall be tested. The value reported shall be the mean of those observed.



t_0 : original thickness
t_f : final thickness
t_s : spacer bar thickness(50% of t_0)



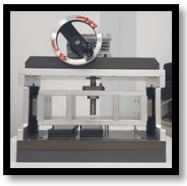
※ Calculation

(1) Ct : compression set expressed as a percentage of the original thickness

$C_t = [(t_0 - t_f) / t_0] \times 100$

(2) Cd : compression set expressed as a percent of the original deflection

$C_d = [(t_0 - t_f) / (t_0 - t_s)] \times 100$



(Note) Approximate conversion of C_t to Cd can be calculated by multiplying the 50 % C_t by 2, the 75 % C_t by 1.33, and the 90 % C_t by 1.11.