NOTATIONS

σ_o = Pre-stress

σ_1 = Major principal stress

σ_2 = Intermediate principal stress

σ_3 = Minor principal stress

σ_n = Normal stress

σ_o = Normal tengential stress

σ_r = Radial compressive stress

σ_{oct} = Octahedral stress

σ_t, To = Maximum tensile stress

σ_{yp} = Yield point stress

E = Young's modulus of elasticity

ϵ_1 = Tensile bending strain at outer fibre

ϵ_2 = Compressive bending strain at outer fibre

ν = Poisson's ratio

τ = Shear stress

M_b = Bending moment

r_i = Internal radius of the ring or cylinder

r_o = External radius of the ring or cylinder

r_d = Radius of disc

r_p = Radius of arc under uniform pressure

q = Radii ratio (Inner radius to outer radius)

P, F = Applied force or load

P_1 = Internal hydrostatic stress

t_d, t = Thickness of the disc

I = Moment of inertia

To = Uniaxial tensile strength

C_o = Uniaxial compressive strength

λ = A Material constant