

Q: What is normal stress, shear stress, and principal stress?

A: Normal stress is a stress acting in the direction perpendicular to a coordinate axis. A shear stress is a stress acting in the direction parallel to a coordinate axis.

Principal stress is a normal stress adjusted such that the stress field is expressed only with normal components by rotating the coordinate axes at each location.

It consists of three orthogonal components, maximum, intermediate, and minimum principal stresses, and they are in descending order.

Please refer to the help menu below for further information:

Home>Technical Note>Stress Analysis>Stress Type.