

# CORE CONCEPT

A sandwich core panel functions similar to an I-beam (below), with the core transferring loads between the two skins. But in order to have sufficient strength and stiffness to prevent failure, the adhesive bond between the skins and the core must be intact. The simplified two-dimensional illustration at right shows the kinds of stress on a cored hull or deck as it bends or flexes under point loading.



1. Tensile—Pulling, or stretching stress on the inner skin.
2. Compressive—Fibers in outer skin are compressed as the panel flexes.
3. Shear—The transverse, torsional stress born largely by the core.

Illustration courtesy of DIAB Inc.

