Cavity or porous region along the centerline of casting sections which are plate-like in shape.

Possible Causes
A layer of metal solidifies rapidly in contact with the mold, especially in the case of green sand or a metal mold, but the metal at the centerline of the casting takes somewhat longer to freeze. The latter is subject to the effects of liquid contraction and solidification shrinkage.

This effect is noticed especially where the alloy has been poured at a temperature too high for the section thickness in question.

Remedies
— Lower the pouring temperature.
— Do not pour into a permanent mold which is insufficiently heated.
— Tilt the mold and pour slowly, or tilt-cast.
— Observe rules governing location and size of risers.
— Use an alloy containing fewer impurities.

B 222 - Copper Alloy, Green Sand
Brass sand casting, 150 mm (6 in.) in diameter. The centerline shrinkage crack (B 222) is located in a zone of porous metal. The defect disappears upon lowering the iron and tin content, increasing riser size, and pouring at a lower temperature.