Finding Why a Layered Panel Bends

Scoring guide · one credit per question · review written work against each rubric

Finding Why a Layered Panel Bends

Question 1

Choice (1)

P and Q reverse the order of the two materials and reverse which side of the stack is on the outside. M is on the outside in both.

Question 2

Free M gains 2.0 mm, and free N gains 0.5 mm. Bending allows the bonded M layer to take the longer outside path while N takes the shorter inside path.

Question 3

M and S differ by 0.2 mm in their free length change, compared with 1.5 mm for M and N. The smaller mismatch gives less reason for the bonded stack to curve.

Question 4

Expose equally sized stacks made with the same bonding method to the same humidity change. Measure their bending under the same conditions. Less bending in the M–S stack supports the prediction.