Every ply, explicitly defined.

Illustrative layup schedule | Units: mm and degrees | English

DEMONSTRATION ONLY. No material grade, process, tolerance or release authority has been assigned. This schedule is not a manufacturing instruction.

Part: DEMO-PLATE-001, flat plate 160 x 30 mm. **Zone:** full plate, constant thickness.
Material: identical UD plies assumed; supplier / grade TBD. Nominal cured ply thickness = 0.250 mm (illustrative).
Reference: +x along the 160 mm edge, +y along the 30 mm edge, +z normal out of the top face. Positive angles rotate from +x toward +y, viewed from +z.
Order: ply 1 starts at the bottom (-z) face; ply 8 ends at the top (+z) face. z = 0 is the laminate mid-plane.

Ply	Angle (deg)	Ply t (mm)	z lower (mm)	z upper (mm)	Coverage
1	0	0.250	-1.000	-0.750	Full plate
2	+45	0.250	-0.750	-0.500	Full plate
3	-45	0.250	-0.500	-0.250	Full plate
4	+90	0.250	-0.250	0.000	Full plate
5	+90	0.250	0.000	0.250	Full plate
6	-45	0.250	0.250	0.500	Full plate
7	+45	0.250	0.500	0.750	Full plate
8	0	0.250	0.750	1.000	Full plate

Definition checks

Compact notation: [0/+45/-45/90]s. Explicit sequence above controls.
Ply count: 8. **Total nominal thickness:** 2.000 mm. **Angle counts:** 0 = 2; +45 = 2; -45 = 2; 90 = 2.
Symmetry: mirrored material, thickness and orientation about z = 0.
Balance: equal +45 and -45 content for the assumed identical material and thickness. Symmetry and balance do not by themselves remove all bending-twisting coupling.

Before real use: specify qualified material data, cured thickness and tolerances, surface / tool-side convention, ply boundaries, overlaps, splices, drops, process requirements, inspection plan and approval. No cut patterns or process parameters are provided.
Related report: CMP-DEMO-RPT-001. Mechanics reference: NASA RP-1351, NTRS 19950009349.