Supporting Information

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Curvature Induced by Deflection in Thick Meta-Plates

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Table S1. The geometrical parameters and Poisson’s ratio of the specimens tested in this study. The parameters are defined in Figures 1c and 1e.

| $\theta$ [°] | $\varphi$ [°] = 90 - $\theta$ | $a$ [mm] | $b$ [mm] | $\nu_{yx}$ [-] | $\nu_{xy}$ [-] |
|-------------|------------------------|---------|---------|----------------|----------------|
| 48          | -42                    | 12.00   | 6.73    | -1.35          | -0.74          |
| 56          | -34                    | 10.57   | 6.03    | -0.97          | -1.03          |
| 64          | -26                    | 9.52    | 5.56    | -0.69          | -1.45          |
| 72          | -18                    | 8.71    | 5.26    | -0.46          | -2.17          |
| 80          | -10                    | 8.04    | 5.08    | -0.25          | -3.96          |
| 88          | -2                     | 7.45    | 5.00    | -0.05          | -19.67         |
| 96          | 6                      | 6.87    | 5.03    | 0.16           | 6.44           |
| 104         | 14                     | 6.25    | 5.15    | 0.37           | 2.67           |
| 112         | 22                     | 5.52    | 5.39    | 0.61           | 1.64           |
| 120         | 30                     | 4.63    | 5.77    | 0.87           | 1.15           |

Table S2. The parameters of the linear regression fit ($\kappa_2 = m \times v$) for meta-plates with different out-of-plane thickness, $h$, values (Figure S1a).

| $h$ [mm] | $m = 1/m$ |
|---------|-----------|
| 1       | 0.2       |
| 2.5     | 1.4       |
| 5       | 4.2       |
| 7.5     | 6.7       |
| 5 (EXP) | 5         |

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Figure S1. Induced curvature, $\kappa_1$, vs. imposed curvature, $\kappa_2$, calculated for meta-plates (circular markers) and plain (i.e., non-architected) plates with equivalent elastic properties (crossed markers).
Figure S2. The evolution of $\kappa_2$ as a function of the Poisson’s ratio for plates with different values of the thicknesses, $h$, ($\kappa_1, W$ are kept constant). $\kappa_2$ exhibits a linear relationship with $\nu$, where the coefficient, $m$, is presented in Table S2 (supplementary document) for each plate thickness.