Supplementary Information

Lightweight, thermally insulating, and low dielectric microcellular high-impact polystyrene (HIPS) foams fabricated by high-pressure foam injection molding with mold opening

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Content:

**Fig. S1** Cellular morphology at different locations of the representative foam prepared by high-pressure foam injection molding with mold opening

**Fig. S2** Mold cavity pressure curves recorded during high-pressure foam injection molding process with different cooling time: (a) 0 s, (b) 10 s, (c) 20 s, and (d) 30 s.

**Fig. S3** SEM images of the foamed sample fabricated with cooling time of 180 s.

**Fig. S4** Recorded cavity pressure variations at location C when opening injection mold with different speed.
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**Fig. S3** SEM images of the foamed sample fabricated with cooling time of 180 s.

![SEM images](image1.png)

**Fig. S4** Recorded cavity pressure variations at location C when opening injection mold with different speed.

![Pressure-time graph](image2.png)