

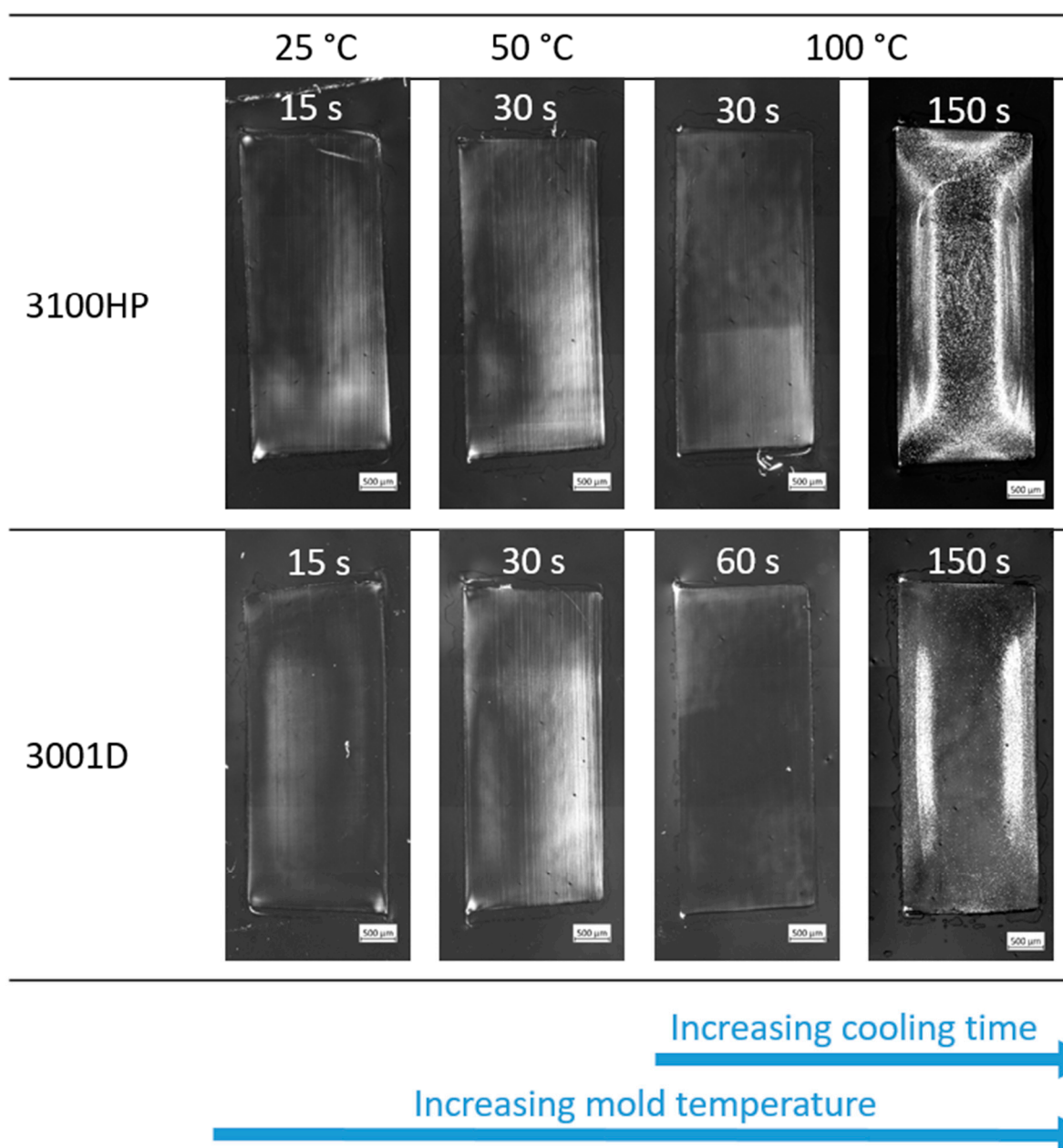
# Correlation between Processing Parameters, Morphology, and Properties of Injection-Molded Polylactid Acid (PLA) Specimens at Different Length Scales

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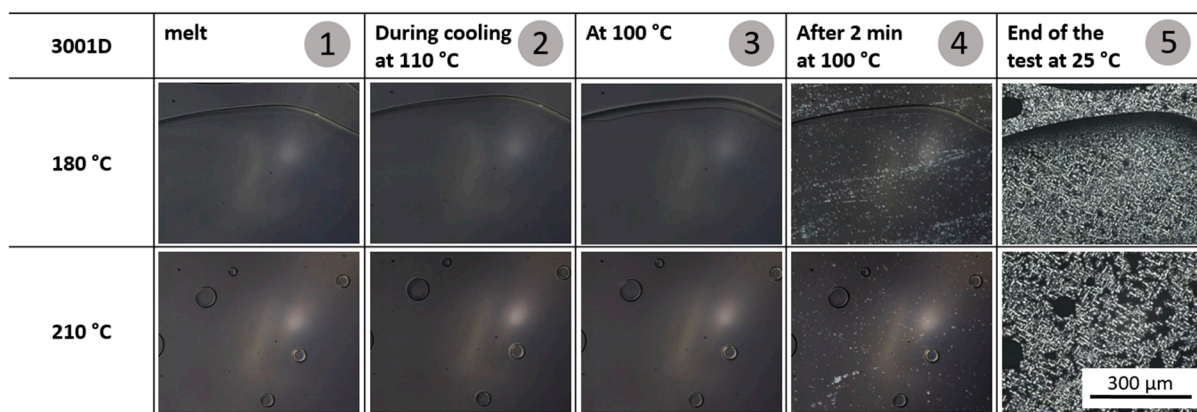
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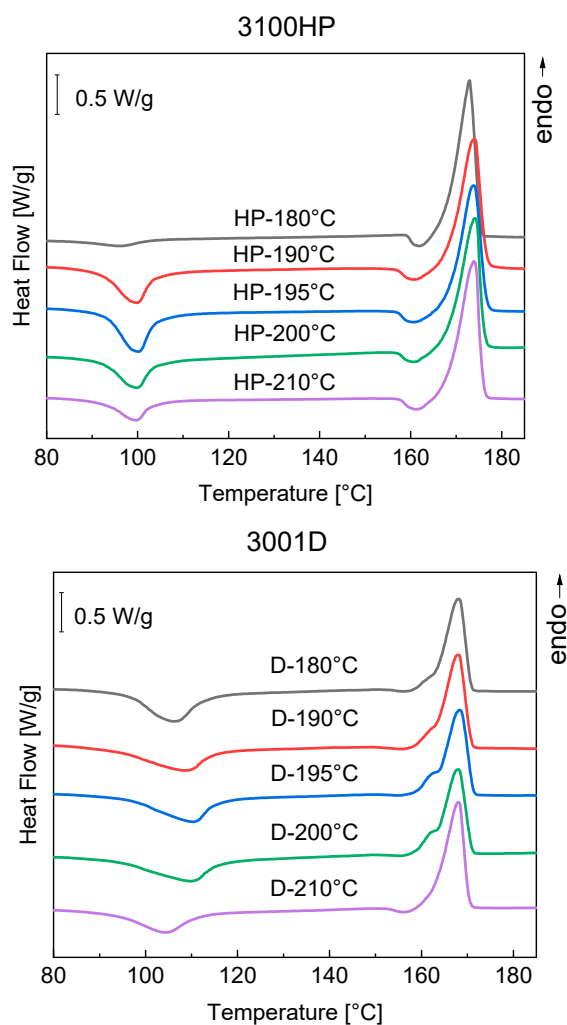
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**Figure S1.** Polarized light microscope images of sample cross sections of PLA grades 3100HP (top row) and 3001D (bottom row) processed by injection molding with different mold temperatures and different cooling times of 15 s, 30 s, and 150 s but constant melt temperature of 210 °C.



**Figure S2.** Light microscopic images of the material 3001D during the hot stage experiments in the molten state, during cooling to 100 °C, at the beginning of isothermal crystallization at 100 °C, after 2 min at 100 °C and at the end of the test at room temperature starting from a 180 °C (top row) and 210 °C (bottom row) hot melt.



**Figure S3.** DSC curves of the first heating cycle of injection molded tensile bars made of PLA 3100HP and PLA 3001D produced with melt temperatures of 180 °C, 190 °C, 195 °C, 200 °C, and 210 °C and cooled in a temperature-controlled mold at 100 °C for 150 s.