

Abstract Submitted  
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**Properties of PET/PLA Electrospun Blends**<sup>1</sup> KEVIN LI, PEGGY CEBE, Tufts University — Electrospun membranes were fabricated from poly(ethylene terephthalate), PET, co-spun with poly(lactic acid), PLA. The PLA contained 2% of the D-isomer, which served to limit the overall degree of crystallinity. Membranes were deposited from blended solutions of PET/PLA in hexafluoroisopropanol. The PET/PLA composition ranged from 0/100, 75/25, 50/50, 25/75, and 100/0. Electrospun membranes were made using either a static flat plate or a rotating wheel as the counter electrode, yielding unoriented mats or highly oriented tapes, respectively. We report on our investigation of the crystallinity, crystal perfection, and mechanical properties of these materials using differential scanning calorimetry, wide and small angle X-ray scattering, and dynamic mechanical analysis. In particular, we study the ability of one blend component (PET) to crystallize in the presence of existing crystals of the second blend component (PLA) which crystallizes first and at a lower temperature than PET.

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