Cellulose rayon (Cordenka CR®) as reinforcing fiber.
Melt compounding of fibers and matrix.
Door panel made of rayon reinforced polypropylene.

**Fiber material:** Cellulose rayon

**Matrix materials:**
e.g. PP, PE, PLA, PHA, starch esters

**Methods**
- compounding
  - kneader, twin screw extruder
- injection molding
- mechanical and thermo mechanical characterization
- structure characterization
  - X-ray analysis
  - electron microscopy (SEM, TEM)
  - nuclear magnetic resonance (liquid, solid state)

**Results (PLA as example):**
- improved mechanical properties, in particular impact behavior
- lower weight compared to glass fiber reinforcement
- lower abrasiveness to processing equipment
- improved thermal stability

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