

The effect of draw ratio and temperature on the drawing PET sheet

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The effect of the double-stage uniaxial drawing process on the mechanical properties of PET sheet was investigated under different drawing conditions. At the double-stage drawing process, the PET sheet samples were stretched at different draw ratio and temperatures. The tensile strengths of each sample were measured on a universal test machine. The tensile strength of PET sheet was increased exponentially as the draw ratio was higher. It had a tendency to be improved by low draw temperature in the low draw ratio range. It showed that at double-stage drawing process, the tensile strength of PET sheet was strongly developed by low temperature and high draw ratio, the double-stage drawing process could be evolved more highly tensile strength of PET sheet than the single-stage drawing process.