

Effect of double-stage uniaxial drawing on mechanical properties in PET sheet

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The double-stage uniaxial drawing process was used, in order to overcome the low drawing ratio of PET sheet at the single-stage drawing process. At the double-stage uniaxial drawing, the first stage drawing created the initial morphology which is extremely important with regard to properties achieved after the second stage drawing. Modified lubricants and plasticizer agents are added to prevent non-homogeneity of drawing ratio at a high temperature at the double-stage uniaxial drawing process. The tensile strength, elongation at yield and young modulus of drawn PET sheet by the double-stage uniaxial drawing process have been discussed.