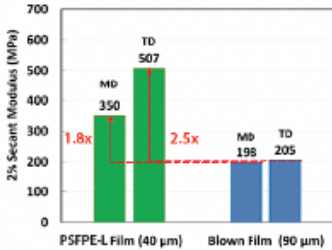


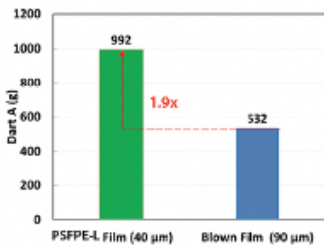
CYCLPAC

Material Properties CPDL & CPDLS



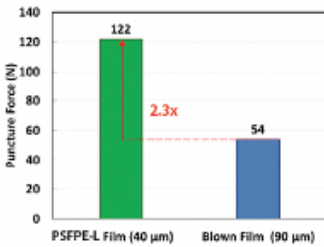
Modulus

- 1.8x improvement in MD modulus and 2.5x improvement in TD modulus
- 40μm CPDL film has a similar stiffness to 90μm blown film, which supports downgauging



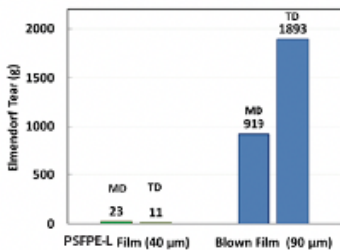
Dart Impact

- The dart impact standard test mimics a package dropped onto the ground from a certain height
- CPDL films show 1.9x higher dart impact than a blown film though it is much thinner



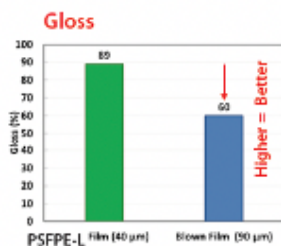
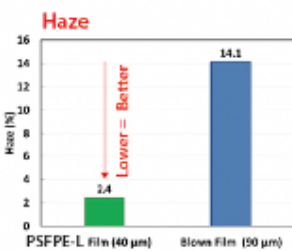
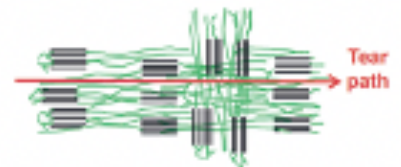
Puncture Test

- The puncture test measures the resistance of a packaging material to a sharp object inside or outside of the package
- CPDL film shows 2.3x improvement in puncture force



Easy Tear

- Lower tear of CPDL film allows consumers to open the package more easily
- Lower tear of the CPDL film is due to its highly orientated cross directional type of morphology



Optical Properties

- Lower haze and higher gloss for CPDL film, which can be attributed to its smaller cross directional type of crystals and smooth surface