



Dr. David Boyles

Professor
Chemistry Department

STATUS

- Patent in place

OVERVIEW

Incorporation of aromatic or strong polar connector groups had been accepted by the scientific community to cause immiscibility with Bisphenol-A Polycarbonate. Dr. David Boyles from the South Dakota School of Mines and Technology has developed and patented processes that contradict this previous finding. Transparent miscible blends of aromatic polycarbonate and high aspect-ratio polycarbonate polymers offer a more dynamic product line with increased mechanical and thermal properties at reduced cost.

DESCRIPTION

Aromatic polycarbonate polymers blended with polycarbonate polymers containing high aspect-ratio monomers are superior in many respects.

- Blends in all proportions
- Miscible
- No phase separation
- Transparent
- Single glass transition temperature
- Benefits in mechanical strength, ductility, and thermal resistance
- Better dipole formation when blended if dielectric polymer desired

ADVANTAGES

- Generates properties and performance of a higher cost polymer
- Results in an overall cost less than that of the expensive polymer

LICENSING OPPORTUNITIES

This technology is patented. South Dakota School of Mines Office of Economic Development is actively seeking exclusive and/or nonexclusive licensing opportunities. Joint development opportunities are also available.

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