

BRIDGED METALLOCENE COMPOUND, OLEFIN POLYMERIZATION CATALYST
USING THE COMPOUND AND ETHYLENE POLYMER OBTAINED BY USING THE
CATALYST

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ABSTRACT

Metallocene compounds of the invention are useful as olefin polymerization catalysts or catalyst components. Olefin polymerization processes of the invention involve an olefin polymerization catalyst containing the metallocene compound. In detail, the olefin polymerization catalysts can catalyze with high polymerization activity the production of olefin polymers having high melt tension, excellent mechanical strength and good particle properties, and the olefin polymerization processes involve the catalysts. Ethylene polymers according to the invention are obtained by the polymerization processes and have higher processability and easy-opening properties and particularly excellent mechanical strength compared to conventional ethylene polymers. Thermoplastic resin compositions of the invention contain the ethylene polymers. In more detail, shaped articles or films are obtained from the ethylene polymers or the thermoplastic resin compositions containing the ethylene polymers, and laminate films include the films.

According to the invention, a single or plural kinds of bridged metallocene compounds having differing cyclopentadienyl-derived groups afford macromonomers that are a source of long-chain branches and simultaneously catalyze the repolymerization of the macromonomers into olefin polymers having a large number of long-chain branches, small neck-in in the T-die extrusion, small take-up surge and superior mechanical strength. The olefin polymerization catalysts and the polymerization processes can efficiently produce the olefin polymers.

No Suitable Figure.