

ABSTRACT OF THE DISCLOSURE

An olefin polymer characterized by having

(A) a density of from 0.850 to 0.940 g/cm³,

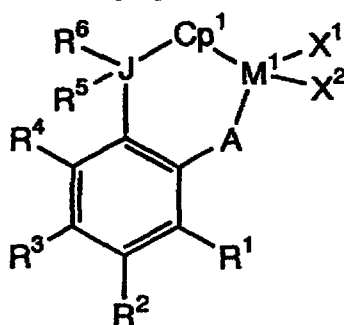
(B) a melt flow rate (MFR) of from 0.1 to 200 g/10
5 minutes, and

(C) a relation between the melt flow rate (MFR) and
an intrinsic viscosity $[\eta]$ measured in tetralin at 135°C
satisfying the range of the following equation (1):

$$-4.04 \log[\eta] + 0.6 \leq \log \text{MFR} \leq -4.04 \log[\eta] + 0.96 \quad (1)$$

10 and its a film or sheet, and a method for producing an olefin
polymer characterized by homopolymerizing an olefin or
copolymerizing two or more olefins at a temperature of at
least 130°C under a pressure of at least 300 kg/cm²G using
a catalyst for olefin polymerization, comprising the
15 following (A), (B) and/or (C):

(A) a transition metal complex represented by the following
general formula [I]:



[I]

(wherein M¹ represents a transition metal atom of Group IV
of the Periodic Table of the Elements; A represents an atom
20 of Group XVI of the Periodic Table of the Elements; J
represents an atom of Group XIV of the Periodic Table of

the Elements; Cp^1 represents a group having a cyclopentadiene anion skeleton; X^1 , X^2 , R^1 , R^2 , R^3 , R^4 , R^5 and R^6 independently represent a hydrogen atom, a halogen atom, an alkyl group, an aralkyl group, an aryl group, a substituted silyl group, an alkoxy group, an aralkyloxy group, an aryloxy group or a di-substituted amino group; and R^1 , R^2 , R^3 , R^4 , R^5 and R^6 may be optionally combined with each other to form a ring),

(B) at least one aluminum compound selected from the following (B1) to (B3):

(B1) an organoaluminum compound represented by the general formula E^1AlZ_{a-1} ;

(B2) a cyclic aluminoxane having a structure represented by the general formula $\{-Al(E^2)-O-\}_b$; and

(B3) a linear aluminoxane having a structure represented by the general formula $E^3-\{Al(E^3)-O-\}_cAlE^3$, (wherein E^1 , E^2 and E^3 respectively represents a hydrocarbon group, all of E^1 , E^2 and E^3 may be the same or different; Z represents a hydrogen atom or a halogen atom, and all of Z may be the same or different; a represents a numeral of 0 to 3; b represents an integer of not less than 2; and c represents an integer of not less than 1), and

(C) a boron compound of any one of the following (C1) to (C3):

(C1) a boron compound represented by the general formula $BQ^1Q^2Q^3$;

(C2) a boron compound represented by the general

formula $G^+(BQ^1Q^2Q^3Q^4)^-$; and

(C3) a boron compound represented by the general formula $(L-H)^+(BQ^1Q^2Q^3Q^4)^-$

(wherein B represents a boron atom in the trivalent valence
5 state, Q^1 to Q^4 may be the same or different and represent
a halogen atom, a hydrocarbon group, a halogenated
hydrocarbon group, a substituted silyl group, an alkoxy
group or a di-substituted amino group, G^+ represents an
inorganic or organic cation; L represents a neutral Lewis
10 base, and $(L-H)^+$ represents a Brønsted acid).