

ABSTRACT

(Figure 1)

ALPHA-OLEFIN POLYMERS, ALPHA-OLEFIN POLYMERIZING CATALYST AND PROCESS FOR PRODUCING ALPHA-OLEFIN POLYMERS

An α -olefin polymer well balanced between stiffness, stickiness, processability, etc., which intrinsic viscosity $[\eta]$ is in the range of from 0.5 to 10 and which 20°C xylene-soluble fraction (CXS) content (% by weight) and 105°C xylene-insoluble fraction (XIS) content (% by weight) satisfy a condition of $XIS \leq 70.00 - 3.64CXS$, provided that CXS is not smaller than 0 and not greater than 15; a specified α -olefin polymerizing catalyst for producing the polymer; a process for producing the polymer using the specified α -olefin polymerizing catalyst; a polypropylene for use in the production of a biaxially oriented film excellent in stretchability and satisfying the conditions (1)-(3) mentioned below; and a biaxially oriented film excellent in stiffness and dimensional stability obtained by stretching the polypropylene:

- (1) the content of 20°C xylene-soluble fraction (CXS) is 3.5% by weight or less,
- (2) the content of 20°C xylene-soluble fraction (CXS, % by weight) and the content of 105°C xylene-insoluble fraction (XIS, % by weight) satisfy the following condition:

$$XIS \leq 70.00 - 3.64CXS, \text{ and}$$

- (3) melt flow rate (MFR) at 230°C is from 0.5 to 10.0 g/10 minutes.