

ABSTRACT

The present invention provides a process for producing an α -olefin polymer comprising polymerizing or copolymerizing

5 (a) C_3 or higher α -olefin(s) in the presence of an olefin polymerization catalyst comprising solid titanium catalyst component (I) containing titanium, magnesium, halogen, and a compound with a specific structure having two or more ether linkages and organometallic catalyst component (II) with high

10 catalytic activity. In this process, particularly even in (co)polymerizing (a) higher olefin(s), demineralization is unnecessary. A 4-methyl-1-pentene-based polymer obtained by polymerization using the catalyst of the present invention is excellent in tacticity, transparency, heat resistance,

15 and releasability, and the polymer is particularly suitable for a release film.