

MULTIMODAL POLYOLEFIN RESIN HAVING HIGH MELT STRENGTH AND MOLDED PRODUCT PREPARED WITH THE SAME

Abstract

Disclosed are a multimodal polyolefin resin having superior characteristics such as moldability, mechanical strength, external appearance, melt strength and so on and a polyolefin resin molded product. The polyolefin resin satisfies all the following requirements (1) to (5): (1) being polymerized in the presence of at least two different metallocene compounds as catalysts; (2) having a matrix index of 2 or less and a melt strength of 4.0 Force (cN) or greater measured at 190 °C; (3) having a melt flow index (MIP, 190 °C, 5.0 kg load condition) of 0.01 to 5.0 g/10min; (4) having a ratio (M_w/M_n , MWD) of weight average molecular weight (M_w) to number average molecular weight (M_n) in the range from 5 to 35 as measured by gel permeation chromatography; and (5) having bimodal or multimodal peaks in a weight average molecular weight distribution measured by gel permeation chromatography.

FIG. 1