

THERMOPLASTIC RESIN COMPOSITION, PRODUCTION METHOD THEREFOR,  
AND MOLDED BODY

## ABSTRACT

Disclosed herein are a thermoplastic resin composition with a novel phase structure which can exhibit excellent mechanical strength in spite of the fact that its composition can be selected from a wide composition range and raw material selection and manufacturing control can be performed flexibly, a method for manufacturing the same, and a molded body. The thermoplastic resin composition is obtained by mixing a polyolefin resin PO, a polyamide resin PA, and a compatibilizer, characterized in that the composition has a first phase  $F_1$  composed of the PA and the compatibilizer and/or a reaction product thereof and a second phase  $F_2$  composed of the PO and interposed between the first phases  $F_1$ , wherein the first phase  $F_1$  has a matrix phase  $F_{11}$  composed of the PA and a dispersed phase  $F_{12}$  dispersed in the matrix phase  $F_{11}$  and composed of the compatibilizer and/or a reaction product thereof, and that the first phase ( $F_1$ ) comprises a branched phase having branch portions. The method includes: the step of melt-kneading the PA and the compatibilizer so that a mixing ratio of the compatibilizer is 11% by mass or more but 45% by mass or less per 100% by mass of a total of the PO, the PA, and the compatibilizer; and the step of melt-kneading an obtained first composition and the PO.

(FIG. 1)