

ABSTRACT

PROCESS FOR MANUFACTURING MODIFIED CONJUGATED DIENE POLYMER, COMPOSITION COMPRISING THE POLYMER, AND TIRE COMPRISING THE COMPOSITION

The present invention has an object to provide a conjugated diene-based polymer, subjected to a vulcanization treatment to make a vulcanized rubber, the vulcanized rubber useful as a material for tire treads excellent in the balance among wet skid characteristics, low hysteresis loss, abrasion resistance, breaking strength and rigidity, and to provide its manufacturing process. According to the present invention, there is provided the process for manufacturing a modified conjugated diene-based polymer having a modifying group in its molecule, the process including a step of obtaining a conjugated diene-based polymer by polymerizing a conjugated diene compound, or a conjugated diene compound and an aromatic vinyl compound, by using an alkaline metal-based initiator or an alkaline earth metal-based initiator in a hydrocarbon solvent, and a step of reacting active terminals of the polymer with a glycidylamino group-containing low molecular compound having two or more tertiary amino groups and three or more glycidyl groups bonded to the amino groups in a molecule of the compound, and an oligomer of a dimer or more of the low molecular compound as modifying agents, wherein the reaction is performed using 75 to 95% by mass of the low molecular compound and 25 to 5% by mass of the oligomer based on the total amount of the modifying agents.