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SUMMARY

[0024a]

In one aspect, the present disclosure refers to a propylene polymer having a meso pentad fraction of 97.0% to 99.5% and a total fraction of 2,1-insertions and 1,3-insertions of propylene monomers of 0.01 mol% to 0.06 mol% relative to all propylene-derived structural units as measured by ^{13}C-NMR,

wherein the propylene polymer shows one or more melting

peaks assigned to α-phases in the range of 160°C or more, and also shows one or more melting peaks assigned to β-phases in the range of 140°C to less than 160°C.

[0024b]

In another aspect, the present disclosure refers to a shaped article comprising the propylene polymer as disclosed herein.

TECHNICAL PROBLEM

[0025]

An object of the invention is to provide transition metal compounds with excellent catalytic activity which can afford olefin polymers such as propylene polymers that have high stereoregularity and high molecular weight and may be easily formed into a β-phase. Another object of the invention is to

CLAIMS

[Claim 1]

A propylene polymer having a meso pentad fraction of 97.0% to 99.5% and a total fraction of 2,1-insertions and 1,3-insertions of propylene monomers of 0.01 mol% to 0.06 mol% relative to all propylene-derived structural units as measured by ^{13}C-NMR,

wherein the propylene polymer shows one or more melting peaks assigned to α-phases in the range of 160°C or more, and also shows one or more melting peaks assigned to β-phases in the range of 140°C to less than 160°C.

[Claim 2]

The propylene polymer according to claim 1, which has the meso pentad fraction of 97.0% to 99.0%, wherein any one of the 2,1-insertion fraction and the 1,3-insertion fraction is less than 0.01 mol%.

[Claim 3]

The propylene polymer according to claim 1 or 2, which has the meso pentad fraction of 97.5% to 99.0%.

[Claim 4]

The propylene polymer according to any one of claims 1 to 3, which has a weight-average molecular weight measured by gel permeation chromatography (GPC) of 10,000 to 1,000,000.

[Claim 5]

The propylene polymer according to claim 4, which has a weight-average molecular weight measured by gel permeation chromatography (GPC) of 10,000 to 400,000.

[Claim 6]

A shaped article comprising the propylene polymer described in any one of claims 1 to 5.