Patent Document 2: JP-A-7-228646

Patent Document 3: JP-A-4-261458

Patent Document 4: JP-A-11-255851

Patent Document 5: JP-A-2004-346259

Patent Document 6: JP-A-2010-24387

SUMMARY

In one aspect of the present disclosure, there is provided a resin composition containing a block copolymer of a vinyl aromatic hydrocarbon and a conjugated diene, which satisfies the following (A) to (D):

(A) the content ratio (mass) of the conjugated diene is from 22 to 32%,

(B) the block ratio of the vinyl aromatic hydrocarbon is from 90 to 98%,

(C) Mw/Mn (wherein Mw is the weight average molecular weight and Mn is the number average molecular weight) is from 1.1 to 1.6 obtained by gel permeation chromatography (GPC) by differential refractive index method,

(D) the loss tangent (tanδ) obtained by dynamic viscoelasticity measurement has one local maximum value (tanδ (max)) within a temperature range of from -90 to -30°C, and tanδ (tanδ (max+30°C)) at a temperature higher by 30 °C than the temperature at the local maximum value (tanδ peak temperature) is at least 0.6 relative to tanδ (tanδ (max)) at the temperature at the local maximum value.

In another aspect of the present disclosure, there is provided a resin composition, which contains the resin composition as defined herein, and another thermoplastic resin.

In yet another aspect of the present disclosure, there is provided a formed product obtained by forming the resin composition as defined herein.

In a further aspect of the present disclosure, there is provided a formed product obtained by secondary processing of the formed product as defined herein.

In another aspect of the present disclosure, there is provided a formed product obtained by tertiary processing of the oriented sheet or the oriented film as defined herein.

DISCLOSURE OF INVENTION

TECHNICAL PROBLEM

It is an object of the present invention to provide a resin composition containing a block copolymer of a vinyl aromatic hydrocarbon and a conjugated diene (hereinafter sometimes referred to simply as a resin composition) such that an obtainable formed product such as a sheet or a film can achieve high impact resistance and transparency in a balanced manner without decreasing other properties such as folding strength, elastic modulus in tension and sheet impact, and a resin composition containing such a resin composition and a thermoplastic resin.

SOLUTION TO PROBLEM

The present inventors have conducted extensive studies to achieve the above object and as a result, found that the above object can be achieved by a resin composition having (A) a content ratio of the conjugated diene, (B) a block ratio of the vinyl aromatic hydrocarbon and (C) Mw/Mn obtained by gel permeation chromatography (GPC) by differential refractive index method within specific ranges, and satisfying the requirement (D) the loss tangent (tanδ) obtained by dynamic viscoelasticity measurement has one local maximum value (tanδ (max)) within a temperature range of from -90 to -30°C, and tanδ (tanδ (max+30°C)) at a temperature higher by 30 °C than the temperature at the local maximum value (tanδ peak temperature) is in a specific proportion relative to tanδ (tanδ (max)) at the temperature at the local maximum value, that is, (tanδ (max+30°C)/tanδ (max)) is in a specific proportion, and accomplished the present invention.

Particularly, of the resin composition containing a block copolymer of the present invention, the after-mentioned range of at least 0.6 which is the above requirement (D) regarding the dynamic viscoelasticity, is a value which has not been achieved by a