MULTILAYERED FILMS, METHODS OF MANUFACTURE THEREOF AND ARTICLES COMPRISING THE SAME

BACKGROUND

[0001] This disclosure relates to multilayered films, methods of manufacture thereof and to articles comprising the same.

[0002] Polypropylene (PP) is often used in packaging industry in the form of films and containers for packaging food and non-food products. PP packages provide advantages of high stiffness, good clarity, and high temperature performance. PP or thermoplastic polyolefin (TPO) is frequently used in automotive industry for panels and parts. Such polymer panels and parts provide benefits of low weight, flexible styling and lower cost. However, limitations exist such as poor printability/paintability, poor scratch and mar resistance.

SUMMARY

[0003] Disclosed herein is a multilayer film comprising a first layer and a second layer; and a tie layer; where the tie layer is disposed between the first layer and the second layer; the first layer being disposed on a first surface of the tie layer; the second layer being disposed on a second surface of the tie layer; where the second surface is opposedly disposed to the first surface; where the tie layer comprises a crystalline block composite and a carboxylated olefin copolymer.

[0003a] In a first aspect, there is provided a multilayer film comprising:

a first layer and a second layer; and

a tie layer; where the tie layer is disposed between the first layer and the second layer; the first layer being disposed on a first surface of the tie layer; the second layer being disposed on a second surface of the tie layer; where the second surface is opposedly disposed to the first surface; where the tie layer comprises a crystalline block composite and a carboxylated olefin copolymer.

[0003b] In a second aspect, there is provided an article comprising the multilayer film as defined herein.

[0004] Disclosed herein too is a method of manufacturing a multilayer film comprising coextruding a multilayered film comprising a first layer and a second layer; and a tie layer; where the tie layer is disposed between the first layer and the second layer; the first layer being disposed on a first surface of the tie layer; the second layer being disposed on a second surface of the tie layer; where the second surface is opposedly disposed to the first

surface; where the tie layer comprises a crystalline block composite and a carboxylated olefin copolymer; and blowing or casting or extrusion coating the multilayered film.

[0004a] In a third aspect, there is provided a method of manufacturing a multilayer film comprising:

coextruding a multilayered film comprising:

a first layer and a second layer; and

a tie layer; where the tie layer is disposed between the first layer and the second layer; the first layer being disposed on a first surface of the tie layer; the second layer being disposed on a second surface of the tie layer; where the second surface is opposedly disposed to the first surface; where the tie layer comprises a crystalline block composite and a carboxylated olefin copolymer; and

blowing or casting or extrusion coating the multilayered film.

BRIEF DESCRIPTION OF THE FIGURES

[0005] Figure 1 is a schematic representation of the multilayered film.

DETAILED DESCRIPTION

[0006] "Composition" and like terms mean a mixture of two or more materials, such as a polymer which is blended with other polymers or which contains additives, fillers, or the like. Included in compositions are pre-reaction, reaction and post-reaction mixtures the latter