Claims

1. A polymer composition suitable for coating a polyolefin fabric substrate comprising the following components:

A) 5 to 35 wt.-% based on the overall weight of the polymer composition of a recycled coated polyolefin fabric substrate; wherein said fabric substrate is coated with a polyolefin composition comprising the following components:

a1) an ethylene based plastomer with a density determined according to ISO 1183-1 in the range of 0.857 to 0.915 g/cm^3 and a MFR_2 (190°C, 2.16 kg) determined according to ISO 1133 in the range of 0.5 to 30 g/10 min; and

a2) a propylene based plastomer with a density determined according to ISO 1183-1 in the range of 0.850 to 0.910 g/cm^3 and a MFR_2 (230°C, 2.16 kg) determined according to ISO 1133 in the range of 0.01 to 30 g/10 min;

B) 65 to 95 wt.-% based on the overall weight of the polymer composition of a virgin polyolefin composition comprising the following components:

b1) an ethylene based plastomer with a density determined according to ISO 1183-1 in the range of 0.857 to 0.915 g/cm^3 and a MFR_2 (190°C, 2.16 kg) determined according to ISO 1133 in the range of 0.5 to 30 g/10 min; and

b2) a propylene based plastomer with a density determined according to ISO 1183-1 in the range of 0.850 to 0.910 g/cm^3 and a MFR_2 (230°C, 2.16 kg) determined according to ISO 1133 in the range of 0.01 to 30 g/10 min.

2. The polymer composition according to claim 1 wherein the content of the coating composition in component A) is in the range of 5 to 90 wt.-%, preferably in the range of 50 to 85 wt.-%, more preferably in the range of 55 to 75 wt.-% and even more preferably in the range of 60 to 70 wt.-% based on the overall weight of component A).

3. The polymer composition according to claim 1 or 2, characterized in that,

the ethylene based plastomer a1) and/or b1) is a copolymer of ethylene and at least one C3 to C10 alpha-olefin and preferably is a copolymer of ethylene and 1-octene; and/or

the propylene based plastomer a2) and/or b2) is a copolymer of propylene and ethylene or a C4 to C10 alpha-olefin.

4. The polymer composition according to claim 1 to 3 characterized in that,the ethylene based plastomer a1) and/or b1) has a density determined according to ISO 1183-1 in the range of 0.860 to 0.915 g/cm^3 and preferably in the range of 0.865 to 0.905 g/cm^3 and/or a MFR_2 (190°C, 2.16 kg) determined according to ISO 1133 in the range of 2.5 to 12 g/10 min; and/or

the propylene based plastomer a2) and/or b2) has a density determined according to ISO 1183-1 in the range of 0.855 to 0.900 g/cm^3 and/or a MFR_2 (230°C, 2.16 kg) determined according to ISO 1133 in the range of 3.0 to 22 g/10 min.

5. The polymer composition according to claim 1 to 4 characterized in that;
a1) and b1) have the same chemical composition and a2) and b2) have the same chemical composition.

6. The polymer composition according to claim 1 to 5 characterized in that,

component A) comprises a flame retardant a3) and/or component B) comprises a flame retardant b3), preferably components A) and B) comprise a flame retardant, preferably the flame retardant a3) and/or b3) comprises an ammonium polyphosphate and more preferably consists of an ammonium polyphosphate.

7. The polymer composition according to claim 1 to 6, characterized in that,

the content of component a1) in the coating composition of component A) is in the range of 40 to 65 wt.-%, preferably in the range of 45 to 62 wt.-% and more preferably in the range of 52 to 60 wt.-% based on the overall weight of the coating composition of component A); and/or

the content of component a2) in the coating composition of component A) is in the range of 20 to 40 wt.-%, preferably in the range of 29 to 39 wt.-% and more preferably in the range of 30 to 34 wt.-% based on the overall weight of the coating composition of component A); and/or

the content of component a3) in the coating composition of component A) is in the range of 5 to 20 wt.-%, preferably in the range of 9 to 16 wt.-% and more preferably in the range of 10 to 14 wt.-% based on the overall weight of the coating composition of component A).

8. The polymer composition according to claim 1 to 7 characterized in that,

the content of component b1) in component B) is in the range of 40 to 65 wt.-%, preferably in the range of 45 to 62 wt.-% and more preferably in the range of 52 to 60 wt.-% based on the overall weight of component B); and/or

the content of component b2) in component B) is in the range of 20 to 40 wt.-%, preferably in the range of 29 to 39 wt.-% and more preferably in the range of 30 to 34 wt.-% based on the overall weight of component B); and/or

the content of component b3) in component B) is in the range of 5 to 20 wt.-%, preferably in the range of 9 to 16 wt.-% and preferably in the range of 10 to 14 wt.-% based on the overall weight of component B).

9. The polymer composition according to claim 1 to 8 characterized in that,

the content of component A) in the polymer composition is in the range of 9 to 31 wt.-% and preferably in the range of 10 to 20 wt.-% based on the overall weight of the polymer composition; and/or

the content of component B) in the polymer composition is in the range of 69 to 91 wt.-% and preferably in the range of 80 to 90 wt.-% based on the overall weight of the polymer composition.

10. The polymer composition according to claim 1 to 9 characterized in that polymer composition component A) is in shredded form, as pellets, as flakes, as powder or as granules.

11. The polymer composition according to claim 1 to 10 characterized in that,

the polymer composition comprises at least one additive, preferably selected from the group consisting of slip agents, anti-acids, antimicrobial agents, UV-stabilisers, pigments, antioxidants, antiblock agents, additive carriers, nucleating agents, lubricants, processing aids, silicon-based anti-scratch agents and mixtures thereof, whereby these additives preferably are present in 0.1 to 10 wt.-% and more preferably in 0.5 to 3 wt.-% based on the overall weight of the polymer composition.

12. A process for the preparation of a polymer composition suitable for coating a polyolefin fabric substrate comprising blending the following components:

A) 5 to 35 wt.-% based on the overall weight of the polymer composition of a recycled coated polyolefin fabric substrate; wherein said fabric substrate is coated with a polyolefin composition comprising the following components:

a1) an ethylene based plastomer with a density determined according to ISO 1183-1 in the range of 0.857 to 0.915 g/cm^3 and a MFR_2 (190°C, 2.16 kg) determined according to ISO 1133 in the range of 0.5 to 30 g/10 min; and

a2) a propylene based plastomer with a density determined according to ISO 1183-1 in the range of 0.850 to 0.910 g/cm^3 and a MFR_2 (230°C, 2.16 kg) determined according to ISO 1133 in the range of 0.01 to 30 g/10 min;

B) 65 to 95 wt.-% based on the overall weight of the polymer composition of a virgin polyolefin composition comprising the following components:

b1) an ethylene based plastomer with a density determined according to ISO 1183-1 in the range of 0.857 to 0.915 g/cm^3 and a MFR_2 (190°C, 2.16 kg) determined according to ISO 1133 in the range of 0.5 to 30 g/10 min; and

b2) a propylene based plastomer with a density determined according to ISO 1183-1 in the range of 0.850 to 0.910 g/cm^3 and a MFR_2 (230°C, 2.16 kg) determined according to ISO 1133 in the range of 0.01 to 30 g/10 min.

13. Use of component A) being a recycled coated polyolefin fabric substrate, wherein said fabric substrate is coated with a polyolefin composition comprising the following components:

a1) an ethylene based plastomer with a density in the range of 0.857 to 0.915 g/cm^3 and a MFR_2 in the range 0.5 to 30 g/10 min;

a2) a propylene based plastomer with a density in the range of 0.850 to 0.910 g/cm^3 and a MFR_2 in the range 0.01 to 30 g/10 min; and

for coating a virgin or recycled polyolefin fabric substrate.

14. Use according to claim 13, characterized in that,

the coating of the virgin or recycled polyolefin fabric substrate comprises 5 to 35 wt.-% of component A) and 65 to 95 wt.-% based on the overall weight of the coating of component B) being a virgin polyolefin composition comprising the following components:

b1) an ethylene based plastomer with a density in the range of 0.857 to 0.915 g/cm^3 and/or a MFR_2 in the range 0.5 to 30 g/10 min;

b2) a propylene based plastomer with a density in the range of 0.850 to 0.910 g/cm^3 and/or a MFR_2 in the range 0.01 to 30 g/10 min; and

b3) optionally a flame retardant.

15. Use according to claim 13 or 14, characterized in that,

component A) comprises a3) a flame retardant, preferably the flame retardant a3) and/or b3) comprises an ammonium polyphosphate and more preferably consists of an ammonium polyphosphate.

16. Use according to claim 13 to 14, characterized in that,

component A) is used in shredded form, as pellets, as flakes, as powder or as granules.

17. Use according to any one of claims 13 to 14, characterized in that,

the coating of the polyolefin fabric substrate, preferably being a virgin polyolefin fabric substrate, is conducted by simultaneous feeding of components A) and B) in a coating line; preferably the coating is conducted by calendering, extrusion coating or lamination.

18. A process for coating a polyolefin fabric substrate with a polymer composition as defined in any one of claims 1 to 11, said process comprising applying said composition to the surface of said polyolefin fabric substrate.

19. A polyolefin fabric substrate coated with a polymer composition as defined in any of claims 1 to 11.

20. The polyolefin fabric substrate according to the claim 19, wherein the fabric substrate is a woven or non-woven fabric and preferably is a knitted fabric.

21. An article comprising at least one component formed from the coated polyolefin substrate as defined in claim 19 which is preferably selected from the group consisting of office furniture, vehicle interiors, seat cushions, back rest cushions, pillows, upholstered furniture, bed mattresses, wall coverings, clothing, shoes,

preferably tongue, vamp, heel counter, quarter, sports bags, inlay of sky boots, sports equipment, preferably boxing gloves, boxing balls, carpets, rubber boats, swimming pools, life vests, handbags, purses, table coverings, table mats, stationary, preferably books and wood inlay, saddlebags, tool bags.