CLAIMS

1. Foamable polypropylene composition (C) comprising

a) a heterophasic propylene copolymer (HECO1) having a melt flow rate MFR_2 (230°C, 2.16 kg) measured according to ISO 1133 in the range from 3 to 10 g/10min and a xylene cold soluble (XCS) fraction in the range of 10.0 to 30.0 wt.-%, said heterophasic propylene copolymer (HECO1) comprising

i) a matrix (M1) being a propylene polymer (PP1) and

ii) an elastomeric propylene copolymer (E1) being dispersed in said matrix,

b) optionally a propylene homopolymer (H-PP),

c) optionally an inorganic filler (F), and

d) at least one foaming agent (FA) selected from chemical and physical foaming agents, whereby the composition (C) comprises:

i) 13.0 to ~~52.99~~24.99 wt.-% of the heterophasic propylene copolymer (HECO1),

ii) 40.0 to 60.0 wt.-% of a heterophasic propylene copolymer (HECO2),

iii) 2.0 to 10.0 wt.-% of a high density polyethylene (HDPE),

iv) 5.0 to 15.0 wt.-% of a plastomer (PL) being a copolymer of ethylene and a C_4 to C_8 α-olefin,

v) 0 to 18.0 wt.-% of the inorganic filler (F), and

vi) 0.01 to 4.0 wt.-% of the foaming agent (FA),

based on the overall polypropylene composition (C).

2. Foamable polypropylene composition (C) according to claim 1, wherein the heterophasic propylene copolymer (HECO1) has

i) a comonomer content of the xylene cold soluble (XCS) fraction ≤ 45.0 mol-%, preferably ≤ 40.0 mol-%, more preferably between 5.0 and 40.0 mol.-%, ,and/or

ii) an intrinsic viscosity (IV) of the xylene cold soluble (XCS) fraction > 3.5 dl/g.

3. Foamable polypropylene composition (C) according to claim 1 or 2, further comprising a heterophasic propylene copolymer (HECO2) comprising

i) a matrix (M2) being a propylene polymer (PP2) and

ii) an elastomeric propylene copolymer (E2) being dispersed in said matrix.

4. Foamable polypropylene composition (C) according to claim 3, wherein the heterophasic propylene copolymer (HECO2) has

i) a melt flow rate MFR_2 (230°C, 2.16 kg) measured according to ISO 1133 in the range from 50 to 120 g/10min, and/or

ii) a xylene cold soluble (XCS) fraction in the range of 12.0 to 35.0 wt.-%, and/or

iii) a comonomer content of the xylene cold soluble (XCS) fraction in the range from 35.0 to 65.0 mol-%, and/or

iv) an intrinsic viscosity (IV) of the xylene cold soluble (XCS) fraction < 3.5 dl/g.

5. Foamable polypropylene composition (C) according to claim 4, further comprising a high density polyethylene (HDPE) and/or a plastomer (PL) being a copolymer of ethylene and a C_4 to C_8 α-olefin.

6. Foamable polypropylene composition (C) according to any one of the preceding claims, wherein the matrix (M1) of the heterophasic propylene copolymer (HECO1) and/or the matrix (M2) of the heterophasic propylene copolymer (HECO2) has/have a melt flow rate MFR_2 (230°C, 2.16 kg) measured according to ISO 1133 in the range from 50.0 to 200.0 g/10min.

7. Foamable polypropylene composition (C) according to any one of the preceding claims, wherein the propylene homopolymer (H-PP), preferably a semicrystalline propylene homopolymer (H-PP), has

i) a melt flow rate MFR_2 (230°C) determined according to ISO 1133 in the range of 40.0 to 120.0 g/10 min, and/or

ii) a melting temperature Tm in the range from 158 to 168°C.

~~8. Foamable polypropylene composition (C) according to any one of claims 1 to 7, comprising~~

~~i) 13.0 to 24.99 wt.-% of the heterophasic propylene copolymer (HECO1),~~

~~ii) 40.0 to 60.0 wt.-% of the heterophasic propylene copolymer (HECO2),~~

~~iii) 2.0 to 10.0 wt.-% of the high density polyethylene (HDPE),~~

~~iv) 5.0 to 15.0 wt.-% of the plastomer (PL) being a copolymer of ethylene and a C_4 to C_8 α-olefin,~~

~~vi) 0 to 18.0 wt.-% of the inorganic filler (F), and~~

~~vi) 0.01 to 4.0 wt.-% of the foaming agent (FA),~~

~~based on the overall polypropylene composition (C).~~

~~9~~8. Foamable polypropylene composition (C) according to any one of the preceding claims, wherein the inorganic filler (F) is talc and/or carbon black.

~~10~~9. Foamable polypropylene composition (C) according to any one of the preceding claims, wherein the foaming agent (FA) is a chemical foaming agent, preferably a bicarbonate or a mixture of citric acid and bicarbonate.

~~11~~10. Foamable polypropylene composition (C) according to any one of the preceding claims, having before foaming

i) a melt flow rate MFR_2 (230°C) determined according to ISO 1133 in the range of 1.0 to 40.0 g/10 min, and/or

ii) a Charpy Impact Strength (NIS+23) measured according to ISO 179-1eA:2000 at +23°C of at least 14 kJ/m^2, like in the range of 14 to 60 kJ/m^2, and/or

iii) a flexural modulus according to ISO 178 on plaques of 2 mm thickness of at least 1300 MPa, like in the range of 1300 to 2600 MPa, and/or

iv) a puncture energy measured according to ISO 6603-2 (on 60x60x2 mm^3 specimens) at +23°C of at least 28 J, like in the range of 28 to 38 J.

~~12~~11. Foamable polypropylene composition (C) according to any one of the preceding claims, having after foaming on plaques of 3 mm thickness.

i) a flexural modulus according to ISO 178 of at least 800 MPa, like in the range of 800 to 1900 MPa, and/or

ii) a puncture energy measured according to ISO 6603-2 (on 60x60x2 mm^3 specimens) at +23°C of at least 10 J, like in the range of 10 to 28 J.

~~13~~12. Use of the foamable polypropylene composition (C) according to any one of claims 1 to ~~12~~ 11 for the production of a foamed part.

~~14~~13. Foamed part, preferably foamed automotive part, comprising the foamable polypropylene composition (C) according to any one of claims 1 to ~~12~~11.