

C L A I M S

1. Polypropylene composition (C), comprising
 - (a) at least 80.0 wt.-% of an α -nucleated heterophasic composition (HECO),
comprising
 - (a1) a (semi)crystalline polypropylene (PP1),
 - (a2) an elastomeric ethylene/propylene copolymer (EPR) dispersed in
said (semi)crystalline polypropylene (PP1),
 - (a3) a first α -nucleating agent (NU1)
 - (b) at least 5.0 wt.-% of a polyethylene (PE) being a copolymer of ethylene and
a C₄-C₁₂ α -olefin, and
 - (c) at least 1.4 wt.-% of a second α -nucleating agent (NU2) which is different
from the first α -nucleating agent (NU1),
based on the overall weight of the polypropylene composition (C).
2. Polypropylene composition (C) according to claim 1, wherein the heterophasic
composition (HECO) has
 - i) a melt flow rate MFR₂ (230 °C, 2.16 kg) determined according to ISO 1133
in the range of 5.0 to 40.0 g/10 min and/or
 - ii) a comonomer content in the range of 2.0 to 15.0 mol.
3. Polypropylene composition (C) according to claim 1 or 2, wherein the
(semi)crystalline polypropylene (PP1) is bimodal, preferably the (semi)crystalline
polypropylene (PP1) comprises at least two (semi)crystalline polypropylene
fractions which differ in the melt flow rate MFR₂ (230 °C, 2.16 kg) determined
according to ISO 1133.
4. Polypropylene composition (C) according to any one of the preceding claims,
wherein the (semi)crystalline polypropylene (PP1)
 - (i) comprises, preferably consists of,
 - (a) a first (semi)crystalline polypropylene fraction (PP1a) having a
melt flow rate MFR₂ (230 °C / 2.16 kg) in the range of 30.0 to
120.0 g/10 min, preferably in the range of 32.0 to 100.0 g/10 min,
more preferably in the range of 35.0 to 97.0 g/10 min,
and

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- (b) a second (semi)crystalline polypropylene fraction (PP1b) having a melt flow rate MFR_2 (230 °C / 2.16 kg) in the range of 5.0 to 25.0 g/10 min, preferably in the range of 7.0 to 21.0 g/10 min, more preferably in the range of 8.0 to 19.0 g/10 min;
- 5 or preferably
- (ii) is a propylene homopolymer (H-PP) comprising, preferably consisting of,
- (a) a first propylene homopolymer fraction (H-PP1a) having a melt flow rate MFR_2 (230 °C / 2.16 kg) in the range of 30.0 to 120.0 g/10 min, preferably in the range of 32.0 to 100.0 g/10 min, more preferably in the range of 35.0 to 97.0 g/10 min,
- 10 and
- (b) a second propylene homopolymer fraction (H-PP1b) having a melt flow rate MFR_2 (230 °C / 2.16 kg) in the range of 5.0 to 25.0 g/10 min, preferably in the range of 7.0 to 21.0 g/10 min, more preferably in the range of 8.0 to 19.0 g/10 min.
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5. Polypropylene composition (C) according to any one of the preceding claims, wherein the heterophasic composition (HECO) has a xylene soluble fraction (XCS) in the range of 5.0 to 30.0 wt.-%.
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6. Polypropylene composition (C) according to any one of the preceding claims, wherein the xylene soluble fraction (XCS) of the heterophasic composition (HECO) has
- i) an ethylene content in the range of 25.0 to 60.0 mol-%, and/or
- 25 ii) an intrinsic viscosity (IV) determined according to DIN ISO 1628/1, October 1999 (in Decalin at 135 °C) in the range of 3.0 to 4.5 dl/g.
7. Polypropylene composition (C) according to any one of the preceding claims, wherein
- 30 i) the first α -nucleating agent (NU1) is a polymeric nucleating agent and
- ii) the second α -nucleating agent (NU2) is a non-polymeric nucleating agent.

8. Polypropylene composition (C) according to claim 7, wherein the first α -nucleating agent (NU1) is a polymeric vinylcycloalkane.
- 5 9. Polypropylene composition (C) according to claim 7 or 8, wherein the second α -nucleating agent (NU2) is selected from the group consisting of talc, salts of diesters of phosphoric acid or mixtures thereof.
- 10 10. Polypropylene composition (C) according to any one of the preceding claims, comprising
- (a) 80.0 to 95.0 wt.-% of the heterophasic composition (HECO),
- (b) 5.0 to 15.0 wt.-% of the polyethylene (PE) being a copolymer of ethylene and a C₄-C₁₂ α -olefin, and
- (c) 1.4 to 5.0 wt.-% of the second α -nucleating agent (NU2).
- 15 10. Polypropylene composition (C) according to any one of the preceding claims, wherein the polyethylene (PE) is a copolymer of ethylene and 1-butene.
- 20 11. Polypropylene composition (C) according to any one of the preceding claims, wherein the polyethylene (PE) has
- i) a density in the range of 890 to 940 kg/m³, and/or
- ii) a melt flow rate MFR₅ (190 °C, 5.0 kg) determined according to ISO 1133 equal or below 3.0 g/10 min.
- 25 12. Polypropylene composition (C) according to any one of the preceding claims, having
- i) a flexural modulus determined according to ISO 178 of at least 1400 MPa, and/or
- ii) a Charpy notched impact strength determined according to ISO 179 / 1eA at 23 °C of at least 8.0 kJ/m².
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13. Method for preparing the polypropylene composition (C) according to any one of claims 1 to 12, comprising the steps of
- 5 i) preparing the α -nucleated heterophasic propylene copolymer (HECO) in a sequential polymerization process comprising at least three reactors, wherein the (semi)crystalline polypropylene (PP1) is produced in the first and/or second reactor in the presence of the first α -nucleating agent (NU1) and the elastomeric ethylene/propylene copolymer (EPR) is produced in a subsequent reactor, and
- 10 ii) blending the α -nucleated heterophasic propylene copolymer (HECO) obtained in step i) with the polyethylene (PE) being a copolymer of ethylene and a C₄-C₁₂ α -olefin and the second α -nucleating agent (NU2).
14. Use of a composition comprising a polyethylene (PE) being a copolymer of ethylene and a C₄-C₁₂ α -olefin and an α -nucleating agent (NU2) according to any one of
- 15 claims 1 and 6 to 8 as an impact modifier for an α -nucleated heterophasic composition (HECO) comprising an α -nucleating agent (NU1) according to any one of claims 1 and 6 to 8.
15. Article, comprising the polypropylene composition (C) according to any one of
- 20 claims 1 to 12.
16. Article according to claim 15, wherein said article is a car seat, a stroller, a baby walker, a toy, a heavy duty pail or a transport packaging.