

Claims

1. A foamed polypropylene composition comprising
(A) from 60.0 to 95.0 wt% of a linear propylene homopolymer and
5 (B) from 5.0 to 40.0 wt% of a low density polyethylene,
based on the total weight of the polypropylene composition,
wherein the polypropylene composition before foaming has a melt flow rate
MFR₂ of from 0.1 to 5.0 g/10 min, determined according to ISO 1133 at a
load of 2.16 kg and a temperature of 230°C, and a F₃₀ melt strength of from
10 0.1 to 2.0 cN, determined according to ISO 16790:2005.
2. The foamed polypropylene composition according to claim 1 having a v30
melt extensibility of less than 150 mm/s, both determined according to ISO
16790:2005.
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3. The foamed polypropylene composition according to claim 1 or 2, wherein
the linear propylene homopolymer (A) has a F₃₀ melt strength of less than 5.0
cN, and/or a v30 melt extensibility of less than 150 mm/s, both determined
according to ISO 16790:2005 and/or a melt flow rate MFR₂ of from 0.5 to 6.0
20 g/10 min, determined according to ISO 1133 at a load of 2.16 kg and a
temperature of 230°C.
4. The foamed polypropylene composition according to any one of the
preceding claims, wherein the low density polyethylene (B) has a density of
25 from 915 to 930 kg/m³, determined according to ISO 1183D and/or a melt
flow rate MFR₂ of from 0.1 to 2.0 g/10 min, determined according to ISO
1133 at a load of 2.16 kg and a temperature of 190°C.

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5. The foamed polypropylene composition according to any one of the preceding claims, wherein the polypropylene composition further comprises a nucleating agent (C).
- 5 6. The foamed polypropylene composition according to any one of the preceding claims wherein the polypropylene composition further comprises a foaming agent (D).
7. A sheet comprising the foamed polypropylene composition according to any
10 one of the preceding claims.
8. The sheet according to claim 7 being a multi-layered sheet.
9. The sheet according to claim 8 comprising a core layer (CL) sandwiched by
15 two skin layers (SL) in adherent contact with the core layer (CL) in the configuration SL-CL-SL, wherein the core layer comprises the foam according to any one of claims 1 to 6.
10. The sheet according to claim 9, wherein the skin layers comprise an
20 unfoamed propylene polymer composition.
11. The sheet according to any one of claims 7 to 10 having a total thickness of from 175 μm to 1400 μm .
- 25 12. The sheet according to claims 9 to 11, wherein the core layer has a thickness of from 75 μm to 1000 μm and the skin layers each independently have a thickness of from 50 μm to 200 μm .
13. A process for producing a sheet according to any one of claims 7 to 12
30 comprising the steps of:

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- a) preparing a polypropylene composition by blending from 60.0 to 95.0 wt% of a linear propylene homopolymer (A) and from 5.0 to 40.0 wt% of a low density polyethylene (B), based on the total weight of the polypropylene composition;
 - 5 b) subjecting the polypropylene composition to a foaming process;
 - c) forming the foamed polypropylene composition into a foamed sheet.
14. An article comprising the foam according to any one of claims 1 to 6 or the sheet according to any one of claim 7 to 12, or as produced by claim 13.
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15. The article according to claim 14 being a container, such as a bottle, cup, can, canister, bowl or tray.
16. The use of a foamed polypropylene composition according to any one of
- 15 claims 1 to 6 or a sheet according to claims 7 to 12 or as produced by claim 13 for the production of an article.