

Claims

1. A polymeric composition in form of a porous polymer powder POW1 having total intruded volume of at least 1.2 ml/g as measured by mercury porosimetry.
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2. The polymeric composition according to claim 1, characterized in that the total intruded volume is at least 1.35 ml/g as measured by mercury porosimetry.
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3. The polymeric composition according to claim 1 or 2, characterized in that the total intruded volume of at most 10ml/g as measured by mercury porosimetry.
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4. The polymeric composition according to claim 1, characterized in that the total intruded volume is between 1.2ml/g and 10ml/g, more preferably between 1.25ml/g and 8 ml/g, even more preferably between 1.3 ml/g and 7 ml/g, advantageously between 1.35 ml/g and 6 ml/g, more advantageously between 1.35 ml/g and 5ml/g and most advantageously between 1.35 ml/g and 4ml/g.
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5. The polymeric composition according to any of claims 1 to 4 characterized in that the relative incremental intrusion for a pore size above 10 μ m of at most 85%.
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6. The polymeric composition according to claim 1 or 2 characterized in that the incremental intrusion between a pore size from 10 μ m to 1 μ m of at least 0.1ml/g, more preferably at least 0.12ml/g and even more preferably at least 0.15ml/g.
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7. The polymeric composition according to claim 1 or 2 characterized in that the incremental intrusion between a pore size from 10 μ m to 0.1 μ m of at least 0.15ml/g, more preferably at least 0.2ml/g and even more preferably at least 0.25ml/g.
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8. The polymeric composition according to claim 1 or 2 characterized in that the relative incremental intrusion

between a pore size from 10µm to 1µm of at least 5%, more preferably at least 8% and even more preferably at least 10%.

9. The polymeric composition according to any of claims 1 to 8,
5 characterized in that the porous polymer powder POW1 has a volume median particle size D50 between 1µm and 700µm.
10. The polymeric composition according to any of claims 1 to 8,
10 characterized in that the apparent bulk density of the polymer powder POW1 is between 0.1g/cm³ and 0.60g/cm³.
11. The polymeric composition according to any of claims 1 to 8,
15 characterized in that the polymer powder POW1 of the invention comprises polymeric particles PAR1 that make up at least 50wt% of the polymer powder composition POW1.
12. The polymeric composition according to claim 11, characterized
20 in that the polymeric particles PAR1 has a weight average particle size (diameter) between 15nm and 900nm.
13. The polymeric composition according to any of claims 11 to 12,
characterized in that the polymeric particle PAR1 is a multistage polymer MSP1 is in form of core-shell particles.
- 25 14. The polymeric composition according to any of claims 11 to 12, characterized in that the polymer powder POW1 comprises a multistage polymer MSP1 in form of a core-shell particle and a (meth)acrylic polymer MP1 in form of a polymeric particles.
- 30 15. The polymeric composition according to any of claims 11 to 12, characterized in that the the polymer powder POW1 comprises a polymer P1.
16. The polymeric composition according to claim 10 or 11
35 characterized in that the multistage polymer MSP1 has a multilayer structure comprising at least one stage (SA1) comprising a polymer (A1) having a glass transition

temperature below 10°C, at least one stage (SA2) comprising a polymer (A2) having a glass transition temperature over 60°C.

17. The polymeric composition according to any of claims 1 to 10,
5 characterized in that the the polymer powder POW1 comprises a multistage polymer MSP1 and a (meth)acrylic polymer MP1.

18. A process for manufacturing a liquid polymer composition LCP1 comprising the steps of
10 a) providing the polymeric composition in form of a porous polymer powder POW1 having total intruded volume of at least 1.2 ml/g as measured by mercury porosimetry according to any of claims 1 to 12,
b) bringing into contact said polymeric composition in
15 form of a porous polymer powder POW1 with a liquid composition LC1.

19. The process according to claim 18, characterized in that the viscosity of the liquid composition LC1 is between 0.5mPas
20 1000Pa*s at a temperature of 25°C.

20. The process according to claim 13 or 14, characterized in that the liquid composition LC1 can be chosen from compositions for preparing vinyl ester, unsaturated polyester or epoxy resin;
25 or it can be for example a styrenic monomer or an (meth)acrylic monomer, or a mixture there of or a liquid composition comprising said monomers.

21. The process according to any of claims 18 to 20, characterized
30 that the pourous polymer powder POW1 represents between 0.5 and 50wt% of the liquid polymer composition LCP1.

22. Use of the polymeric composition according to any of claims 1 to 12 or of the composition obtained by the process according
35 to any of claims 13 to 15 as impact modifier or impact modified composition.

23. A process to reduce the dispersing time of a polymer powder in a liquid by providing a polymeric composition in form of a porous polymer powder POW1 having total intruded volume of at least 1.2 ml/g as measured by mercury porosimetry according to any of claims 1 to 17.
24. The process according to claims 23, comprising the steps of
- providing a precursor for a thermosetting polymer or a monomer of a thermoplastic polymer
 - bringing into contact the polymeric composition in form of a porous polymer powder POW1 and said precursor.
25. The process according to claims 24, characterized in that the precursor is liquid, preferably having a viscosity of the liquid composition LC1 is between 0.5mPas 1000Pa*s at a temperature of 25°C.
26. The process according to claims 24, characterized in that the between 0.5 parts by weight and 100parts by weight of porous polymer powder POW1 are brought into contact for 100 parts by weight of said precursor.
27. Use of the polymeric composition according to any of claims 1 to 17 as a reduced dispersing time composition.