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ABSTRACT

TRANSPARENT POLYAMIDE MOULDING MATERIALS HAVING IMPROVED TRANSPARENCY, RESISTANCE TO CHEMICALS AND HIGH PERMANENT FATIGUE STRENGTH

Transparent polyamide moulding materials are provided which are characterized in that they have a melting enthalpy between 0 and 12 J/g and the polyamides are constituted of

- 5 100 mole-% of a diamine mixture having 10-70 mole-% of PACM [bis-(4-amino-cyclohexyl)-methane] with less than 50 wt.-% of trans,trans-isomer and 90-30 mole-% of MACM [bis-(4-amino-3-methyl-cyclohexyl)-methane], wherein, optionally, 0-10 mole-% can be replaced by other aliphatic diamines having 6 to 12 C atoms, cycloaliphatic, alkyl-substituted cycloaliphatic, branched aliphatic diamines or
- 10 multiamines having 3 to 12 amino groups or mixtures thereof, and

- 100 mole-% of long-chain aliphatic dicarboxylic acids having 8 to 14 C atoms or mixtures of these dicarboxylic acids, wherein 0-10 mole-% can be replaced by other aromatic or cycloaliphatic dicarboxylic acids having 8 to 16 C atoms, which are especially selected from the group consisting of isophthalic acid, terephthalic acid,
- 15 naphthalenedicarboxylic acid, cyclohexanedicarboxylic acid or mixtures thereof, and

wherein, optionally, 0-10 mole-% of the other long-chain aliphatic diamines and 0-10 mole-% of the other long-chain aliphatic dicarboxylic acids can be added as 0-20 mole-% of ω -aminocarboxylic acids having 6 to 12 C atoms or lactams having 6 to 12 C atoms.

- 20 Further, methods for producing the polyamide moulding materials and methods for producing and further treating moulded articles from the polyamide moulding materials are provided. Especially, the present invention relates to glasses and lenses which are obtainable from the polyamide moulding materials.



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