Claims

1. PMMA foam, formed from
one or more blowing agents selected from urea, tert-butyl(meth)acrylate, isopropyl(meth)acrylate, tert-butanol, tert-butyl methyl ether, isopropanol or poly(tert-butyl(meth)acrylate),
an initiator,
one or more crosslinkers selected from di-, tri- or tetra(meth)acrylates, allyl (meth)acrylate, triallyl cyanurate and/or triallyl isocyanurate, and
one or more chain transfer agents selected from compounds having from one to five mercaptan groups and/or γ-terpinene, preferably selected from pentaerythritol tetrathioglycolate, 2-mercaptoethanol, alkyl mercaptans having from 2 to 12 carbon atoms, thioglycolic acid, thioglycolate and/or γ-terpinene,
wherein the solid fraction of this PMMA foam contains from 0.2 to 12.5 wt% of silicon oxide particles and from 72 to 98 wt% of a polymer incorporating not less than 75 mol% of MMA repeat units, and the foam has a density between 25 and 250 kg/m^3 and an average cell size below 500 µm.

2. PMMA foam according to Claim 1, wherein the PMMA foam has an overall cell size below 500 µm.