Because of the properties of a distinctly reduced increase in haze at elevated temperature that have surprisingly been found, the products are especially suitable for applications such as lighting and glazing. When the products are used in lighting applications with signal colours, no shift in the colour locus is to be expected owing to an increase in haze.

A further field of use for the moulding composition impact-modified in accordance with the invention is for automotive glazing. The demands for toughness are met in combination with heat distortion resistance and optical properties such as high transparency coupled with very low haze even at elevated temperatures.

The invention therefore further relates to the use of the moulding composition according to the invention and to the use of the moulded article according to the invention.

More particularly, the invention relates to the use of the moulding composition according to the invention for production of large and/or thin-walled components in injection moulding and for production of glass panes/glazing (for example covers for vehicle lights, i.e. headlamps or rear lights; coloured glass covers for automobile lights; further varied lighting applications for building interior and/or exterior lighting which have to meet high demands particularly with regard to vandalism, thermal stability and good processibility).

It is a particular, frequent requirement in the production of said mouldings by injection moulding or injection-compression moulding, because of the often large dimensions and low wall thicknesses, for the molten moulding composition to have good flow properties.

The use of the moulding composition according to the invention for production of the coloured glass covers for automobile lights mentioned is especially relevant, since these coloured glass covers have to fulfil official legal requirements relating to colour loci according to SAE and ECE.

The invention further relates to the use of the moulding composition according to the invention for production of displays for communication devices, especially PDAs, mobile phones, preferably smartphones; tablet PCs; TV devices; kitchen appliances and other electronic devices.

Especially preferably, the invention relates to the use of the moulding composition according to the invention for production of large and/or thin-walled components in injection moulding, which come into contact with hot media and/or radiated heat (for example light coupling) and which consequently have to fulfil high demands, especially with regard to thermal stability.

More particularly, the invention further relates to the use of the moulded article according to the invention in the form of impact-modified and large and/or thin-walled components from injection moulding, glass panes/glazing (for example covers for vehicle lights, i.e. headlamps or rear lights; coloured glass covers for automobile lights; further varied lighting applications for building interior and/or exterior lighting which have to meet high demands particularly with regard to vandalism, thermal stability and good processibility).

The invention further relates to the use of the moulded article according to the invention in the form of displays for communication devices, especially PDAs, mobile phones, preferably smartphones; tablet PCs; TV devices; kitchen appliances and other electronic devices.

period of about 2 h. Subsequently, about 60 min after the feeding of emulsion (ii) had ended, emulsion (iii) was metered in over a period of about 1 h. 30 min after the feeding of emulsion (iii) had ended, the mixture was cooled to 30°C.

To separate the core-shell-shell particles, the dispersion was frozen at -20°C for 2 days, then thawed again, and the coagulated dispersion was separated by means of a filter fabric. The solids were dried at 50°C in a drying cabinet (for about 3 days). The particle size of the core-shell-shell particles (see Table 2) was determined by means of a Coulter Nano-Sizer® N5, by analysing the particles in dispersion.

Comparative Examples CE2 and CE3

Production of the core-shell-shell particles by Preparation Method B

At 52°C (internal tank temperature), 1.711 kg of water were initially charged in a stirred polymerization tank, and 0.10 g of acetic acid, 0.0034 g of iron(II) sulphate, 0.69 g of sodium disulphite and the seed latex were added. Subsequently, emulsion (i) was metered in over the course of 1.5 h. 10 min after the feeding of emulsion (i) had ended, 7.46 g of sodium disulphite dissolved in 100 g of water were added and emulsion (ii) was metered in over a period of about 2.5 h. Subsequently, about 30 min after the feeding of emulsion (ii) had ended, 0.62 g of sodium disulphite dissolved in 50 g of water were added and emulsion (iii) was metered in over a period of about 1.5 h. 30 min after the feeding of emulsion (iii) had ended, the mixture was cooled to 30°C.

To separate the core-shell-shell particles, the dispersion was frozen at -20°C for 2 days, then thawed again, and the coagulated dispersion was separated by means of a filter fabric. The solids were dried at 50°C in a drying cabinet (for about 3

days). The particle size of the core-shell-shell particles (see Table 2) was determined by means of a Coulter Nano-Sizer® N5, by analysing the particles in dispersion.

Table 1: Summary of the individual emulsions (all figures in [g])

	IE1	IE2	IE3	CE1	CE2	CE3
Seed latex	15.00	12.00	5.00	28.00	5.00	13.00
Emulsion (i)						
Water	878.70	878.70	878.70	878.70	732.69	732.69
Sodium persulphate	0.70	0.70	0.70	0.70	0.51	0.51
Aerosol OT75	5.60	5.60	5.60	5.60	4.67	4.67
Methyl methacrylate	1071.62	1071.62	1071.62	1071.62	703.47	703.47
Ethyl acrylate	44.74	44.74	44.74	44.74	29.40	29.40
Allyl methacrylate	2.24	2.24	2.24	2.24	2.21	2.21
Emulsion (ii)						
Water	606.90	606.90	606.90	606.90	628.65	628.65
Sodium persulphate	1.58	1.58	1.58	1.58	1.44	1.44
Aerosol OT75	7.20	7.20	7.20	7.20	7.46	7.46
Butyl acrylate	1160.63	1160.63	1160.63	1160.63	1219.72	1219.72
Styrene	256.00	256.00	256.00	256.00	262.87	262.87
Allyl methacrylate	21.57	21.57	21.57	21.57	19.53	19.53
Emulsion (iii)						
Water	404.30	404.30	404.30	404.30	381.56	381.56
Sodium persulphate	0.70	0.70	0.70	0.70	0.44	0.44
Aerosol OT75	1.08	1.08	1.08	1.08	1.34	1.34
Methyl methacrylate	614.27	614.27	614.27	614.27	920.45	920.45
Ethyl acrylate	24.93	24.93	24.93	24.93	38.35	38.35

Blending of the moulding compositions

average molecular weight at least 10% higher compared to the at least one (meth)acrylic polymer according to II.

10. Moulded article obtainable from a moulding composition according to at least one of Claims 1 to 9.

11. Moulded article according to Claim 10, characterized in that the moulded article has

a. a Charpy impact resistance to ISO 179 of at least 40.0 kJ/m^2, preferably of at least 60.0 kJ/m^2, more preferably of at least 80.0 kJ/m^2, at 23°C and
b. a haze to ASTM D 1003 (1997) of ≤ 3% at 23°C. preferably of ≤ 2% at 23°C. further preferably of ≤ 1.5% at 23°C. very preferably of ≤ 1.0% at 23°C. and a haze to ASTM D 1003 (1997) of ≤ 21% at 80°C. preferably of ≤ 20% at 80°C. further preferably of ≤ 18% at 80°C. very preferably of ≤ 16% at 80°C. and
c. a Vicat softening temperature to DIN ISO 306 (Aug. 1994) of ≥ 98°C. preferably ≥ 99°C. more preferably ≥ 100°C. very preferably ≥ 102°C. and
d. a melt volume flow rate MVR to ISO 1133 (230°C; 3.8 kg) of ≥ 1.5 cm^3/10min. preferably of ≥ 2.0 cm^3/10min. further preferably of ≥ 2.5 cm^3/10min.

12. Use of a moulding composition according to at least one of Claims 1 to 9
for production of large and/or thin-walled impact-resistant components;
for production of glass panes/glazing, especially covers for vehicle lights, especially headlamps or rear lights or coloured glass covers for automobile lights;
for production of displays for communication devices, especially PDAs, mobile phones, preferably smartphones; tablet PCs; TV devices; kitchen appliances and other electronic devices; or
for production of building interior and/or exterior lighting.

13. Use of a moulded article according to either of Claims 10 and 11 as an impact-modified and large and/or thin-walled injection-moulded component;
as glass panes/glazing (for example covers for vehicle lights, i.e. headlamps or rear lights; coloured glass covers for automobile lights;