

- 42 -

ABSTRACTPROCESS FOR PRODUCTION OF METHACRYLATE POLYMERS

5 A process for producing a methacrylate polymer
composition having a polymer content of 40-70% by weight
comprises continuously polymerising a monomer feed composed
predominantly of methyl methacrylate in a bulk
polymerization reactor of the complete mixing type, the
10 reactor being substantially full up with the polymer
composition and being maintained in a thermally insulated
state, at a polymerization temperature of 120-180°C with an
average residence time of 15 minutes to 2 hours using a
radical initiator having a half-life of not more than 1
15 minute at the polymerization temperature, at a concentration
C (mol/100 g monomer) which satisfies the following
relation:

$$4 \times 10^{-5} \cdot \exp(0.019T) < C \cdot \theta < 3 \times 10^{-8} \cdot \exp(0.079T)$$

wherein θ is the average residence time in minutes and T is
20 the polymerization temperature in °C.

