Special Information on Coinjection Moulding: Adhäsion

4. Mechanical Anchoring

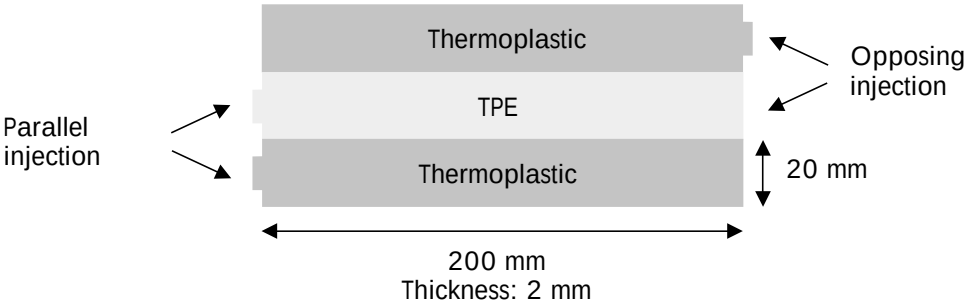
Mechanical anchoring involves no physical bonding between the adjacent materials. Connection is made, for example, by undercuts or openings in the semi-finished injection-moulded part. Our applications engineers will be happy to answer any questions you may have concerning the feasibility of mechanical anchoring for your specific application.

5. Adhesion

THERMOLAST K is based on styrene-block-copolymers which allow extensive formulation modifications to provide outstanding adhesion properties with any of a wide variety of other thermoplastics.

The term adhesion is used to describe physical bonding between adjacent materials. Occasionally this type of bonding may be referred to as a "chemical connection". This is in fact incorrect as bonding between thermoplastics and TPE definitely does not occur via chemical reactions.
Adhesion is caused by intermolecular attraction (Van der Waals forces) and by molecular entanglement (inter-diffusion).

- Van der Waals forces: attraction forces due to molecular interactions
- Interdiffusion: mechanical, intermolecular entanglement of macromolecules driven by thermal energy. Sections of neighbouring macromolecules penetrate into each other, forming a mechanical connection.



KRAIBURG TPE specimen for hard/soft connections