

Overmolding of thermoplastics - adhesion (VE)

When overmolding an insert made of a thermoplastic (TP) with another TP, there are some basic rules to follow to ensure and get a (relative) good adhesion. Besides some chemical, thermal and rheology compatibility/similarity (when overmolding dissimilar materials), the most important one is to get a local melting at the interface to favor the polymer chains entanglement and therefore get a real bond (not just a sticking). It is possible using a rather simple approach to assess qualitatively if we can get a good bond (or not). In case a quantitative strength is required, for instance in the overall performances of the assembly, FEA can be used with more advanced approaches.

This is briefly discussed in this [document](#) .