

## ADHESION ON POWDER COATED MATERIAL



Although very different in composition, in the context of bonding, powder coating layers are considered as plastics.

The adhesion on powder coated surfaces shows very different results because powder coatings contains fluoropolymer additives as surface-tension modifier polytetrafluoroethylene (PFTE, also known as Teflon), polyethylene (PE) waxes which significantly alter the surface characteristics and flow- control additives, which function are to reduce the surface tension of the powder particles as they melt. These additives are an important ingredient in the formulation of powder coatings.

Because of the variation and low surface energy we strongly advise against bonding on powder coated material. Eventually you can assess the quality of adhesion on powder coated layers by means of adhesion tests, which are performed prior to the start of application of the substructure!

The TWEHA adhesives, based on Silane modified polymers, are polar and therefore have a relatively high surface energy. Therefore achieve these adhesives an optimal adhesion to polar substrates (e.g., glass or metal) with a relatively high surface energy. Critical is the use of materials with a low surface tension (a-polar substrates) such as silicone, polyethylene and polypropylene.