PLASCOAT PPA571ES

COMPARISON OF PLASCOAT PPA 571ES AND POLYESTER POWDER COATINGS

1) Plascoat PPA571ES is a thermoplastic powder coating and hence melts to form a fusion bonded coating. Polyester powders must melt and chemically cross-link to develop their physical properties and adhesion. The curing schedule is therefore critical for polyester powder coatings. PPA571 only has to melt onto the surface to provide adhesion, and when the coating is cooled full physical properties are ensured.

2) Plascoat PPA571ES has been formulated to give excellent resistance to UV light and water including acid rain and salt spray. Furthermore it offers excellent corrosion resistance when applied over mild steel, galvanised steel or aluminium.

3) Plascoat PPA571ES is applied at 150 to 250 microns in a single application. Polyesters are applied at 50 to 100 microns. The thicker PPA571ES coating ensures that the edges are well covered and that the interstices of any wire sections are pinhole free.

4) Polyesters are by their chemical nature water permeable. Water passing through the coating will bring with it acids or salts from the environment. These will attack the substrate beneath and cause blistering and cracking of the coating. PPA571ES is hydrophobic and so water will not be absorbed by the coating. Therefore salts cannot attack the substrate below unless the coating is damaged. Even if the coating is damaged the adhesive mechanism resists underfilm creep and the coating is so flexible it cannot crack and fall off.

5) Polyesters have a similar chemistry to paints used by Graffiti "artists". Therefore solvents carry the colour into the polyester coating. The solvents used to dissolve the graffiti paint also remove layers of the polyester powder coating. PPA571ES is non porous to the graffiti paint solvents and so they do not penetrate into PPA571ES coatings. Therefore graffiti can be easily wiped off using solvents such as toluene or MEK with little affect to the coating.

6) Plascoat PPA571ES is extremely flexible even down to -78°C. Polyesters even when fully cured do not have good flexibility.

7) From the coater's viewpoint the thermoplastic nature of PPA571ES means that the shelf life of the product is many years but polyester powders will slowly cross-link and may become unusable after a few months, especially in hot climates.

8) Plascoat PPA571ES can be over-sprayed with PPA571ES to give a thicker coating or alternatively with polyester if the thickness and corrosion properties or PPA571 are required but the hardness of polyester is also desired. In both cases inter-coat adhesion is assured.

9) Plascoat PPA571ES coatings can be easily repaired using the same polymer system. Plascoat can supply repair rods of PA571ES, which can be melted into the coating to produce an invisible repair. Polyesters can only be repaired with a solvent based paint which may not have the same physical or weathering properties as offered by the coating powder.