



POWDER COATING PLANT, HAMILTON

Aluminium extrusions are also coated with high grade polyester powders as an alternative to anodising.

PRE-TREATMENT

In order to obtain good paint adhesion the aluminium extrusions must first be pretreated. The eight stages are firstly, a detergent cleaner to remove oil and smut. This is followed by a rinse then an acid etch. After the etch, the aluminium is dipped into two consecutive rinse tanks to flush impurities from the aluminium substrate then immersed in a chromate conversion tank prior to a final rinse. The extrusions are then placed into a drying oven.

The chromate conversion layer applied to the substrate becomes an integral part of the aluminium and forms a corrosion resistant layer for the powder to adhere to.

SPRAYING METHODS

The main principle of painting is the charging of powder particles.

The powder particles are charged when forced down a Teflon tube which is wrapped around the barrel of the spray gun. By rubbing against this tube the particles of powder gain a positive charge.

Once the charged particles exit the spray gun, they are attracted to the earthed aluminium extrusions and the powder wraps around the extrusion to give an even, uniform finish.

After spraying, the extrusions are cured at specified temperatures and times in order for the coating to flow out and cure.

The coated aluminium is then tested in accordance with WANZ "ENDUROCOLOUR®" BS 6496 and AS 3715 specifications by trained inspectors.

Powder coating, with its comprehensive colour range, is very adaptable to the continually changing market conditions. Several different types of powders are available to suit varying application, from bathroom fittings to commercial joinery.

Inex Metals, having expertise in both anodising and powder coating can advise customers on the best finish for their specific application.