WORKMEC SPECIFICATION ON CATAPHORESIS TREATMENT

Introduction

Metal surfaces treated with Cataphoresis get a high resistance to atmospheric agents. Being an immersion treatment combined with electric energy, due to electro–deposit, gives a very high resistance to corrosion to the most inaccessible parts of the products such as housings, deep bends and couplings, contrary to traditional spray application methods. Cataphoresis treatment is widely used in various fields – automotive, tractors, air-conditioning, heating and industry.

Technical data

Cataphoresis is a technically advanced method particularly recommended to situations requiring high resistance to atmospheric agents, alkali and diluted acids.

Methodology

Degreasing, activation, phosphating process with zinc salts, cathodic electro-deposit applied with epoxy products followed by immersion and reticulation in kiln

Cycle of Cataphoresis Treatment

Hot degreasing at 50/60° C  
Transfer washing with mains H₂O  
Atomising or washing with mains H₂O  
Washing with mains H₂O  
Activation  
Hot tricationic phosphating with zinc salts 50° C  
Washing with mains H₂O  
Water washing  
Dripping-off  
Immersion in cataphoresis bath with bi-component product  
Code IVI PPG Emulsion 543464  
Code IVI PPG Paste 543403  
Washing with U.F. (Ultra Filtered Water) above tank  
Washing with U.F. during transfer  
Washing in tunnel with U.F.  
Washing with clean U.F. during transfer or immersion  
Tunnel dripping  
Reticulation kiln at 220° for 22 min. , total stay time 45’ 1/6
Chemical and physical test

Thickness microns : 12 -30
Bending with spindle : No leaks
Resistance to salt : Number of hours 500 + 700 (ASTM-B117)
Resistance to alkali : no visual change
Resistance to hydrocarbons : no visual change
Resistance to water 60°C : no visual change
24 hours long
Resistance to chloride : no visual change
Resistance MEK : after 40 double passages, clean control pad
Resistance to bending at 90° and 120° : no leaks
Bearable temperature : 300 °C for 1 hour long

Additional cycles of painting
Depending on what required, it can be applied above stoving enamels of any nature, synthetic or catalyzed, epoxy powder, polyurethane and polyester products.

Our office is available for further technical and trade information on details and relative cycles of production.

Example of resistance to bending at 90°
Example of resistance MEK after 40 double passages

Positive result - clean control pad
Negative result – Dirty control pad