Paint Testing Methods

Introduction

Paints and their allied products like varnishes, enamels, pigments, printing inks and synthetic resins protect assets from corrosion. These are increasingly being used in automotive, engineering and consumer durable sectors. Paint testing can be done in a number of different ways. The fact of the matter is that many industries use several different paint testing methods in order to ensure accurate results. Paint should be tested in a wet form for particular properties but also in the dry form. Testing of paints generally falls into three categories: testing of the raw materials, testing of the finished product and performance testing using accelerated weathering and other simulation type methods of evaluation.
Coatings technologists deal with interfaces of all classes’ gas liquid as in an aerosol spray liquid liquid, as in an emulsion gas solid, as in a dry pigment before its immersion in a vehicle liquid solid, as in a pigment dispersion and solid solid, as when the crystal faces of two different pigment particles are in tight contact. Paint scientists are particularly interested in the formation of liquid solid interfaces that are stable in the package, that is, in the permanent replacement of the air at the air solid interface of the pigment by the vehicle to give the liquid solid interface of the dispersion.
In coatings and similar products, the criteria for best performance particulate ingredients; inorganic, organic, extender and metallic flake pigments and dispersed phase of latexes depends on the size and shape of particles composing the particulate materials. The purpose of paint testing is to help and ensure that the minimum requirements for ingredients and material characterization are met by the manufacturer on a batch basis, and to help ensure that the formulated product will provide satisfactory performance in the environment.
Market Outlook

The Indian paint market is expected to reach Rs.70, 875 crore by 2019-20 from around Rs.40, 300 crore in 2014-15.

The decorative paint market is expected to witness CAGR of 12.7 per cent and the industrial paint market CAGR of 9.5 per cent.
Indian paint market is expected to reach 49,545 INR Crs by 2016 – 17, decorative market will continue to grow and would have higher share compared to industrial paints.
World Production of Paints and Coatings
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