

INTERNATIONAL

Convention on Colorants - 2009

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Colorants for Automotive Paints

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Narendra R Upadhyay, a post graduate in chemistry from Mumbai University, has worked in Jaysinth Dye Chem, Anuvi Chemicals and Shreejay Polymers, before joining Asian Paints. He has total 19 years working experience, out of which 15 years on paints. He has handled various assignments in Asian Paints and presently, working as a Technical Manager in R&D of Asian PPG industries, a joint venture of Asian Paints and PPG USA, manufacturing and supplying paints to various automotive and industrial OEMs. Asian PPG is also a major supplier of Auto refinishes in India. He has hands-on experience in product development, its standardization at shop-floor and at customer end.

He had received training at PPG-USA and PPG-Korea on paint development and application. He has also received training at ABB-Japan for shade matching techniques and DURR-Germany on color harmony.



ABSTRACT

The main focus of the presentation will be the use /selection/properties/advantages of pigments in automotive industries. The lecture covers the basics of color and the pigments used in automotive industry, their characteristics and importance in long term durability of vehicle. It includes different kind of pigments used and their purpose and role to meet the specification required by the OEM Manufacturer.

The lecture will involve mainly the type of pigments used in automotive industries, the advantages/disadvantages, properties, latest developments, end customer's priority, uses, limitations and selection criteria. Main focus of the topic will be uses & selection of pigments in the automotive industry.

The biggest problem auto industry is facing currently is the color harmony between body & bumper. The basic root cause of shade mismatch is the selection of Pigments / Aluminium & Mica. If the pigments are not selected properly the flip/flop tone will not match and it will result into shade difference between the body & bumper. The lecture discusses the systematic approach of the paint manufacturer to resolve/control the color harmony. The presentation also discusses on the instrumental method of selection of pigment and fixing up the color to avoid metameric effect so that the color will match in all angles. The type of dispersing agents in the application of pigments is one of the important parameter. Discussion will be carried out on the type of dispersing agents to be used for proper dispersion of pigments to avoid any flocculation thus increasing the storage stability. The advantages and disadvantages of PWC will be overviewed.