

AMPL13 PIGMENTS & ADDITIVES FOR POLYMERS

1. Properties required in a pigment and extender
2. Pigment dispersion basics
3. Inorganic pigments such as titanium dioxide, zinc oxide, carbon black, chromate pigments, molybdate orange, chrome green, ultramarine blue, iron blue, cadmium red, pearlescent and other effect pigments
4. corrosion inhibiting pigments, such as zinc phosphate, zinc and barium chromate pigments, ceramic pigments, metal flake pigments, extenders
5. Theory of color formation in organic compounds, effect of auxiliary groups on the shade and hue of the pigment (Bathochromic and hyper chromic shift)
6. Manufacture of Carbon black different grades such as furnace & channel black Additives such as dispersion aids, UV stabilizers, antioxidants & antiozonents, processing/flow modifiers, different fillers such as calcium carbonate, mica, talc & others etc.

Reference Books:

1. Additives for Plastics Handbook 2nd Edition Editor: J. Murphy
2. Additives in Polymers\ In book: Modification of Polymer Properties (pp.87-108) Publisher: William Andrew Publishing Editors: Carlos F. Jasso-Gastinel, José M. Kenny Authors:
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