

THE EFFECT OF VARYING THE ALKYL GROUP ON THE PERFORMANCE OF ALKYL TRIALKOXYSIANES USED TO SURFACE MODIFY COSMETIC PIGMENTS AND FILLERS

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Pigments and fillers treated with alkyl trialkoxysilanes are widely used in color cosmetics and sunscreens. Although hydrophobicity is the most obvious property imparted by the silanes, the effect on wetting in a variety of vehicles is most frequently the reason for the use of the surface modified pigments. Although the octyl trialkoxysilanes are the silanes best known to cosmetic formulators, alkoxy silanes having alkyl groups ranging from C₁ to C₂₄ are available. Measurement of physical properties of the treated pigments and incorporation into typical color cosmetic vehicles were performed to compare the performance of the longer and shorter chain alkoxy silanes.