

## **Abstract: Heubach Presentation ICMBA 2009**

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### **Single Pigment Concentrate: Concept & Technology**

Single Pigment Concentrates are produced by a unique technique known as “Flushing”. The flushing process starts with pigment in the press cake form, against the conventional dispersion processes that use pigments in dry powder form.

Pigments, when synthesized are in the form of very small crystals, called primary particles. The aim of pigment synthesis is to produce primary particles of a size that optimizes the pigment application properties such as colour strength, tone, brightness, transparency, opacity & flow properties. The press cake contains the pigment in this optimum disaggregated form. During drying of pigment press cake, primary particles join together to form aggregates & agglomerates. Even after milling of the dry pigment by manufacturer, these aggregates & agglomerates are not completely broken down in the dry powder that is produced & sold.

It remains the function of the pigment user, i.e. Masterbatch manufacturer to further break down the aggregates using different processing techniques to achieve the optimum dispersion of the pigment. It requires intimate wetting of the pigment by polymer. This is usually difficult with polymers to achieve good dispersion.

The flushing process by passes this dispersion step. The press cake containing pigment having optimum particle size is mixed with the carrier, such as wax under the appropriate temperature & mixing conditions. In presence of suitable additives, the pigment transfers from the press cake to organic phase while retaining the original particle size. It results in the pre-dispersed pigment with original particle size at higher concentration.

Heubach is introducing two product ranges in this category

1. Heucoplast EZ
2. Heucoplast HZ