Boosting Opacity

Have you transformed your formulation yet?

Omyacoat® 420

TiO_2 enhancement by
ChameleoBoost™ Technology

THINKING OF TOMORROW

Omyacoat 420

Ultrafine Ground Calcium Carbonate in high PVC matt decorative paints

The use of Omyacoat 420 allows an optimization of the titanium dioxide content based on the opacifying effect provided by its ultra fine particles. In formulations above the critical pigment volume concentration the titanium dioxide content can be significantly reduced without compromising the dry opacity.

Omyacoat 420 can be used in matt and semi-matt paints. In formulations with very low Sheen levels of 2% (example given below) it is recommend to combine Omyacoat 420 with a coarser product. The reformulation was done at high pigment volume concentration.

Omyacoat 420 allows formulators to reduce binder content by having a better filler packing in the system.

Matt decorative paint formulations of high PVC

Raw material	Control	Optimized
	Parts by weight	
Water and additives	42	42.5
Titanium dioxide	6	5
Omyacarb 2	30	-
Omyacarb 5	11.5	28.5
Omyacoat 420	-	15
Vinyl versatate emulsion 50%	10.5	9
Total	100	100
PVC %	77.5	80.6

Results of application

Optical properties (Gap 150 µm)			Control	Optimized
Ry at C2°	DIN 53 140	%	91.2	91.1
Ry over black at C2°	DIN 53 140	%	83.1	83.5
Yellowness index	-	-	2.2	2.6
Contrast ratio	ISO 2814	%	91.1	91.7
Gloss 85°	ISO 2813	-	2.0	1.3
Contrast ratio at 7,5 m^2/l	ISO 11998	%	94.7	95.0
Contrast ratio class at 7,5 m^2/l	EN 13300	Class	4	3
Mechanical properties acc. EN 13300				
Wet scrub resistance class	EN 13300	Class	3	3

Benefits in applications

- *Omyacoat 420 improves the efficiency and enables reduction of titanium dioxide*
- *Optimization of binder content*
- *Very good dispersibility in water-based matt to semi-gloss paint systems*
- *Reduction of carbon footprint when replacing parts of TiO_2 and binder*

ChameleoBoost™ Technology

MINERAL EXCELLENCE SINCE 1884

Omya International AG, Baslerstrasse 42, CH-4665 Oftringen, e-mail: coatings@omya.com

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