

Boosting Opacity

Have you transformed your formulation yet?



enhanced
by Omya



Omyaflow®

Excellent Optics and zero Dispersion
need with ChameleoBoost™ Technology



THINKING OF TOMORROW

Omyaflow®

Predispersed Ultrafine Ground Calcium Carbonate Slurry for matt Decorative Paints at high Pigment Volume Concentration (PVC)

Omyaflow® is a product family of water based ultrafine Calcium Carbonate for the use in matt and semi-matt decorative paints, preferably at high PVC.

Omyaflow® boosts by its ultrafine particles the dry opacity and brightness of decorative paints. The optical efficiency allows alternatively a significant reduction of white pigments and thus costs at maintained opacity levels. Of course, the partial substitution shows a positive contribution on the carbon footprint of decorative paint formulations.

Exemplary the performance of Omyaflow® 6 is presented in the following reformulations. An impressive boost of optical properties can be seen even when replacing with a solids content between 72% and 78% parts of the pigment.

Economic interior emulsion paint with PVC of 77%

	Control	Omyaflow® 6	-10% TiO ₂	-20% TiO ₂
Emulsion, 53%	12.0	12.0	12.0	12.0
TiO₂	10.0	10.0	8.0	6.0
Omyacarb® 2	16.5	16.5	16.5	16.5
Omyacarb® 5	20.0	10.0	10.0	10.0
Omyaflow® 6, 72%	0.0	10.0	12.0	14.0
Additives, Mica & Water	41.5	41.5	41.5	41.5
Total	100.0	100.0	100.0	100.0
PVC	77.1%	77.1%	77.3%	77.5%

Benefits

- *Very high brightness and opacity*
- *Reduced yellowness*
- *Partial pigment substitution*
- *Lower carbon footprint by replacing parts of TiO₂*

Results of optical and mechanical properties

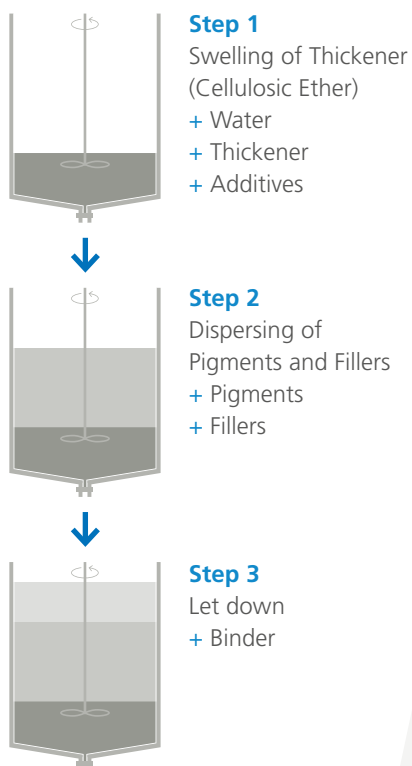
	Control	Omyaflow® 6	-10% TiO ₂	-20% TiO ₂
Brightness Ry	88.5%	90.4%	89.6%	89.3%
Yellowness index	4.9%	3.6%	3.9%	4.1%
Opacity (Gap height 150 µm)	95.8%	98.1%	97.3%	97.0%
Gloss 85°	1.9	3.4	3.4	3.6
Wet scrub resistance class EN 13300	4	4	4	4



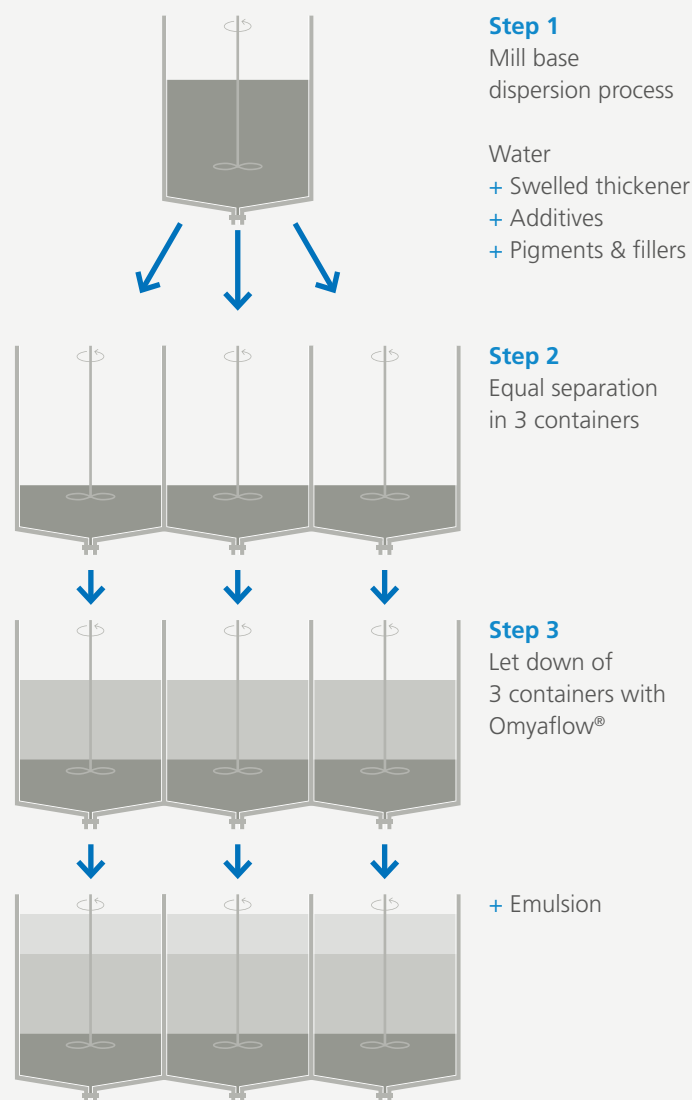
Higher Efficiency and Speed for Emulsion Paint Production

Thanks to its homogeneous distribution and stabilization in a water-based suspension (slurry), Omyaflow® can be just added during the paint manufacturing without the need of a dispersion process. This improves the efficiency in paint manufacturing while reducing production time and energy costs.

Conventional batch production of emulsion paints



Economic emulsion paint production with much lower mill base



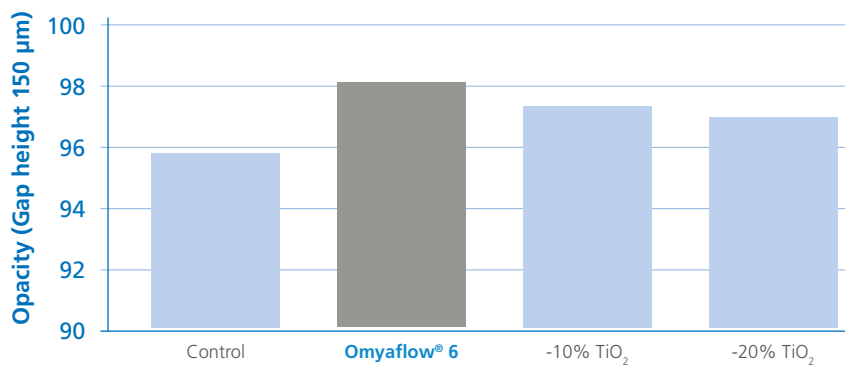
Increased dispersing capacity with factor 2.3, because of less mill base. This leads to higher output in mt/hours with factor 1.6 (35 min vs. 55 min).

Benefits

- No dispersion process of mineral filler needed
- Reduction of production time
- Higher production efficiency



Increased opacity despite partial substitution of titanium dioxide



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

**THIS PAPER CONTAINS
OMYA PIGMENTS**

Omya has taken every possible care to ensure that the information herein is correct in all aspects. However, Omya cannot be held responsible for any errors or omissions which may be found herein, nor will it accept responsibility for any use which may be of the information, the same having been given in good faith, but without legal responsibility. This information does not give rise to any warranties of any kind, expressed or implied, including fitness for purpose and non-infringement of intellectual property. The technical information presented comprises typical data and should not be taken as representing a specification. Omya reserves the right to change any of the data without notice.

Source: Omya International (2019/02) EN