

# Boosting Opacity

Have you transformed your formulation yet?



## Omyawhite® 18

Enhancement of Paints & Coatings  
with ChameleoBoost™ Technology



THINKING OF TOMORROW



# Omyawhite® 18

## Precipitated Calcium Carbonate for Paints and Coatings

Omyawhite® 18 scalenohedral Precipitated Calcium Carbonate (PCC) provides excellent dry hiding and opacity in interior emulsion paints. With its opacifying characteristics, Omyawhite® 18 completes the Omya functional filler product range. Omyawhite® 18 is produced at our plant in Golling, Austria.

### Outstanding Brightness

Precipitated Calcium Carbonate fillers achieve higher brightness and lower yellowness in interior emulsion paint formulations compared with other natural mineral fillers.

### Dry Hiding and Opacity

Dry hiding and opacity are the result of a combination of complex interactions. Factors such as the amount of titanium dioxide, type, size and volume of mineral fillers, pigment volume concentration and porosity contribute to the final appearance. The right choice of fillers is crucial to achieve appropriate opacity values and enables partial substitution of Titanium Dioxide.

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### Benefits

- *High brightness*
- *Low yellowness*
- *Excellent opacity and gloss control*
- *Improved wet scrub resistance*
- *Outstanding cost performance ratio*

## Omyawhite® 18

### Testformulation for Performance

#### Check 1

Omyawhite® 18 is part of our functional filler portfolio. Designed as an opacity and dry hiding booster it maximizes the efficiency of today's available Omya grades. The performance of Omyawhite® 18 is shown in direct comparison with other mineral fillers.

Product	PVC 50	PVC 70
<b>S/A Emulsion</b>	159.4	159.4
<b>FILLER (d = 2.7 g/cm³)</b>	199.3	465.1
<b>Additives</b>	34.3	34.3
<b>Water</b>	341.2	341.2
<b>Total</b>	734.2	1000.0
<b>PVC</b>	50.0 %	70.0 %

## Omyawhite® 18

### Testformulation for Performance

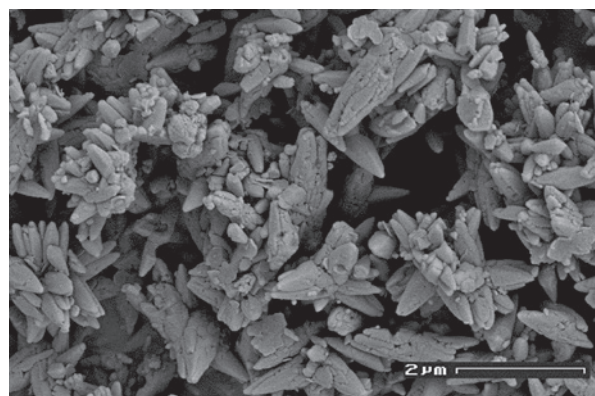
#### Check 2

The comparison with commercially available PCC grades confirms the superior performance of the scalenohedral PCC Omyawhite® 18.

Product	Amount
<b>Binder</b>	12.3
<b>TiO<sub>2</sub></b>	7.0
<b>Triton 20</b>	10.0
<b>Omyacarb® 2</b>	5.0
<b>Omyacarb® 5</b>	10.0
<b>PCC under evaluation</b>	19.9
<b>Additives</b>	3.4
<b>Water</b>	32.4
<b>Total</b>	100.0
<b>PVC</b>	76.2 %



Physical properties	
<b>Median particle size (d50%)</b>	1.8 µm
<b>Particles &lt; 2 µm</b>	52 %
<b>Brightness Ry (C/2°, DIN 53163)</b>	96 %
<b>Oil absorption (ISO 787-5)</b>	34 g/100 g

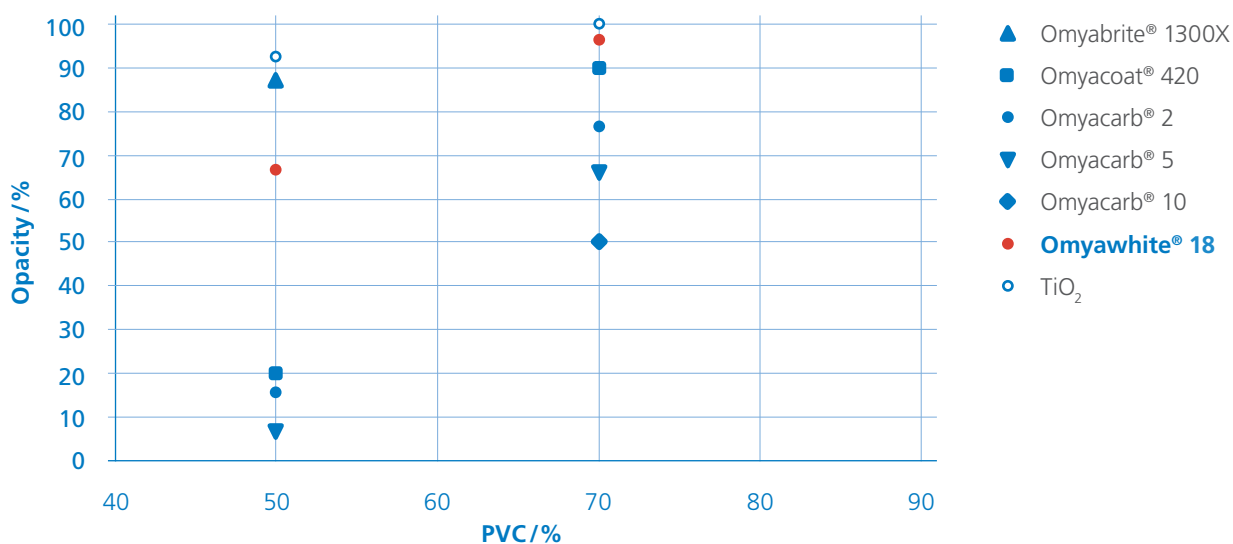


SEM image of Omyawhite®18

## Innovation – Omyawhite® 18 improves the optical properties and wet scrub resistance of decorative emulsion paints



### Omyawhite® 18 Results of Performance Check 1



### Omyawhite® 18 Results of Performance Check 2

	Market PCC 1	Market PCC 2	Omyawhite® 18
<b>Ry white (gap = 150 µm)</b>	91.5	90.9	91.5
<b>Yellowness index (gap = 150 µm)</b>	3.6	4.5	3.1
<b>Contrast ratio (gap = 150 µm)</b>	95.7	95.1	96.2
<b>85° Gloss (gap = 150 µm)</b>	3.5	2.6	4.6
<b>Opacity at 7,5 m² / liter</b>	97.5	97.1	97.7
<b>Wet scrub resistance (7d 40°C/200c)</b>	21	49	32



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