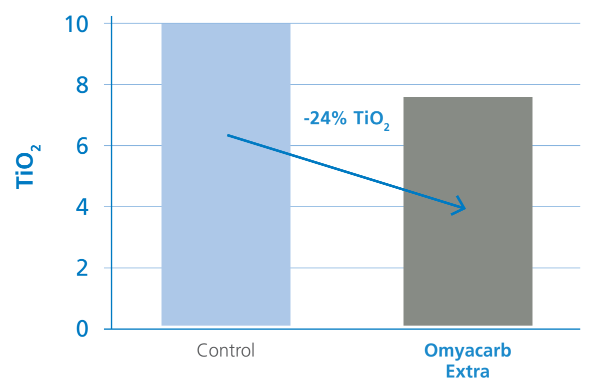
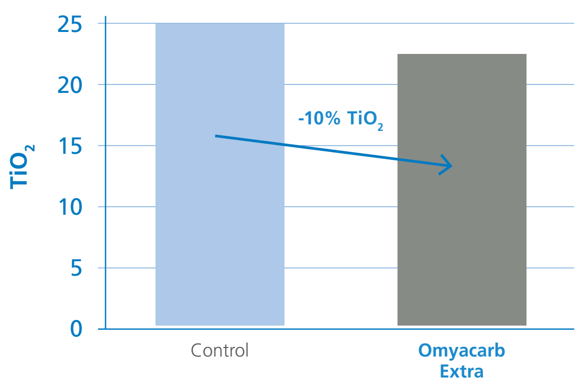
Economic interior emulsion paint with PVC 81% at similar opacity



High-gloss solvent based alkyd coating with PVC < 15% at similar opacity and gloss level



Carbon Footprint reduction through partial substitution of TiO_2 with UFGCC

Components		Formulations					CO_2 per ton of formulated product [kg/t]				
	CO_2 [kg/t]	Con-trol	-10% TiO_2	-20% TiO_2	-30% TiO_2	-40% TiO_2	Con-trol	-10% TiO_2	-20% TiO_2	-30% TiO_2	-40% TiO_2
Water + Additives	10	30.0	30.0	30.0	30.0	30.0	3.0	3.0	3.0	3.0	3.0
TiO_2	5300	15.0	13.5	12.0	10.5	9.0	795.0	715.5	636.0	556.5	477.0
Fillers & Matting Agents	200	38.0	38.0	38.0	38.0	38.0	76.0	76.0	76.0	76.0	76.0
Ultrafine GCC	54.2	0.0	1.5	3.0	4.5	6.0	0.0	0.8	1.6	2.4	3.3
Emulsion	2500	17.0	17.0	17.0	17.0	17.0	425.0	425.0	425.0	425.0	425.0
Total		100	100	100	100	100	1299	1220	1142	1063	984
							CO_2 reduction [%]:	**6%**	**12%**	**18%**	**24%**

Low carbon footprint

Significantly lower the carbon footprint of your paint formulation with Ultrafine GCC's.

enhanced by Omya

Omyacarb Extra is a registered trademark of Omya AG in the European Union, USA and multiple other countries.

MINERAL EXCELLENCE SINCE 1884

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Boosting Opacity

Have you transformed your formulation yet?

enhanced by Omya

Omyacarb® Extra

Excellent Optical Properties and Dispersibility with ChameleoBoost™ Technology

THINKING OF TOMORROW

Omyacarb Extra

Ultrafine Ground Calcium Carbonate in matt Decorative Paints with high Pigment Volume Concentration (PVC)

The use of Omyacarb Extra allows an optimization of titanium dioxide content based on the opacifying effect provided by its ultrafine particles. In formulations above the critical pigment volume concentration the titanium dioxide can be significantly reduced without compromising the dry opacity. Despite the pigment reduction the brightness and yellowness can be slightly improved.

Omyacarb Extra enables formulators also to reduce binder content by having a better filler packing in the system leading to additional cost savings without suffering in mechanical properties such as wet scrub resistance.

Economic interior emulsion paint with PVC 81%

	Control	Omyacarb Extra
Water, Binder & Additives	37.0	37.0
TiO_2	10.0	7.6
Omyacarb 2	26.5	15
Omyacarb 5	26.5	26
Omyacarb Extra	**0.0**	**14.4**
Total	100.0	100.0

Results of optical properties[1]

	Control	Omyacarb Extra
Brightness Ry	91.2%	91.4%
Yellowness index	4.0%	3.5%
Opacity (Gap height 150 µm)	95.1%	95.2%
Gloss 85°	4	5

[1] *Indicative values*

Benefits

- *High opacity and brightness*
- *Easy dispersible*
- *Saving pigment and costs*
- *Enhancing carbon footprint*
- *Partial substitution of titanium dioxide by dry hiding effect*

ChameleoBoost™ Technology

Ultrafine Ground Calcium Carbonate in high gloss Coatings at low PVC

Omyacarb Extra is designed to enhance the performance of pigments such as TiO_2 in a wide range of gloss levels. The extraordinary dispersibility in both water and solvent based systems characterize its properties.

The performance of Omyacarb Extra is assessed in a high gloss solvent-based alkyd coating. In the described example the titanium dioxide content is reduced by 10% from 25 weight parts to 22.5 weight parts replaced by Omyacarb Extra at slightly higher dosage.

The examination of gloss and contrast ratio was done after the coatings were dried at ambient temperature. The optical properties were measured at a dry film thickness of 60 µm.

The data in results table shows that Omyacarb Extra can be used without visual impact on gloss. Thus Omyacarb Extra offers potential pigment and cost savings, e.g. of titanium dioxide, in the described solvent-based alkyd coating. In addition, the pigment savings lead to significantly lower carbon footprint of the coating formulation and helps to protect our environment.

High-gloss solvent based alkyd coating with PVC < 15%

	Control	Omyacarb Extra
Alkyd binder, 70% in solvent	50.0	50.0
Co-binder, 50% in solvent	5.0	5.0
TiO_2	25.0	22.5
Omyacarb Extra	-	**4.0**
Solvents & Additives	20.0	18.5
Total	100.0	100.0

Results of optical properties[1]

	Control	Omyacarb Extra
Brightness Ry	87.2%	87.1%
Yellowness index	3.8%	3.9%
Opacity (Gap height 150 µm)	96.8%	96.7%
Gloss 20° / 60°	82.9/91.9	81.9/91.8

[1] *Indicative values*

Benefits

- *High gloss*
- *Similar opacity*
- *Easy dispersible*
- *Saving pigment and costs*
- *Enhancing carbon footprint*
- *Substitution of TiO_2 by spacing effect*