

Construction

Omyasphere[®] 200 series

For ceramic tile adhesives (CTA)



THINKING OF TOMORROW



Improve performance and save cost in tile adhesives with Omyasphere 200 series

Omyasphere 200 series, lightweight fillers based on closed-cell expanded perlite, leads to density reduction and significant yield enhancement when replacing sand in tile adhesives formulations. Based on its low density, Omyasphere 200 series can replace a large part of sand in ratio ~ 1: 10. When compared with other lightweight fillers (e.g. expanded glass or cenospheres), a much lower dosage rate for Omyasphere 200 series is needed to match mortar density and achieve equivalent mechanical performance but leads to clear and tangible savings.

Case Study

4.5% Omyasphere 200 series replaces 15% of expanded glass leading to significant cost reduction and carbon footprint decrease while maintaining equivalent mechanical performance in C2TE tile adhesive formulation.

C2TE Mortar density ~ 1.3 kg/l	% by weight	% by weight
Cement	50	50
Redispersable powder	5	5
Omyacarb 65 (d50~45 µm)	5	5
Additives (e.g. MHEC)	0.5	0.5
Sand	24.5	35
Expanded glass 0.1 - 0.3	15	-
Omyasphere 235 T - FQ	-	4.5
Total	100	100
Water	29.1	29.5
Carbon footprint CO ₂ e	ref.	-8%

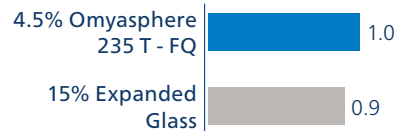
Adhesive strength

Dry storage (28d 23 °C, 50% RH)



Adhesive strength

Wet storage (7d 23 °C, 50% RH + 21d water)



Open time

Dry storage (28d 23 °C, 50% RH) after 30 min



Lightweight filler contribution to cost in use - Relative Index



Key Benefits

- ✓ Weight reduction at same spread rate
- ✓ Faster tiling operations
- ✓ Improved workability
- ✓ Enhanced sag resistance

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