

Omyasphere® 900 series

For highly reflective and elastomeric cool roof coatings



Improve Performance and Cooling Energy Savings with Omyasphere 900 Series – Hollow Glass Microspheres

Omyasphere 900 series are lightweight fillers engineered for the construction industry derived from soda lime borosilicate glass. They are spherical and hermetic microspheres with low density, high compressive strength and high brightness that provide functional properties to your coating formulation.

Application

When compared to a formulation without lightweight filler, the introduction of hollow glass microspheres can increase yield and improve mechanical properties. Additionally, the low density of Omyasphere 900 leads to safer handling and easier application of the final product as well as tangible savings in the transportation phase, reducing the carbon footprint of the final product.



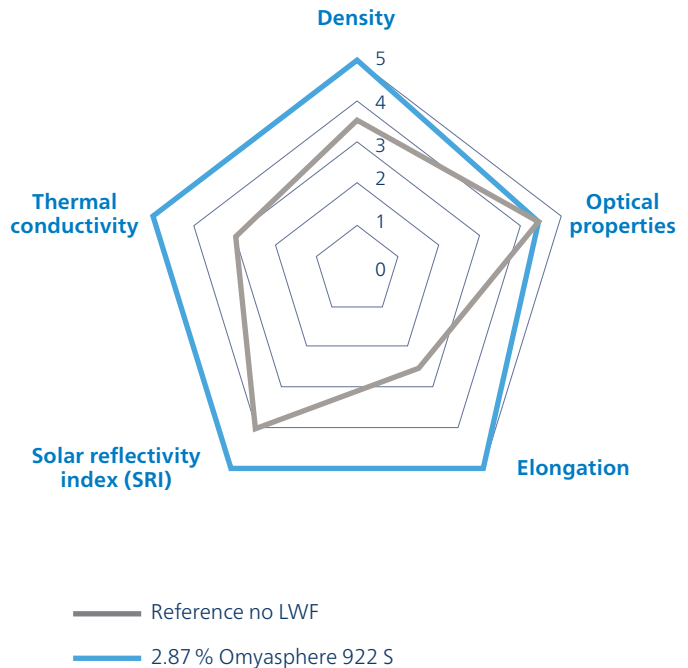
Benefits

- ✓ Density reduction
- ✓ Higher yield
- ✓ Increased elongation
- ✓ Reduced thermal conductivity
- ✓ Reduced heat build-up
- ✓ Cooling energy savings

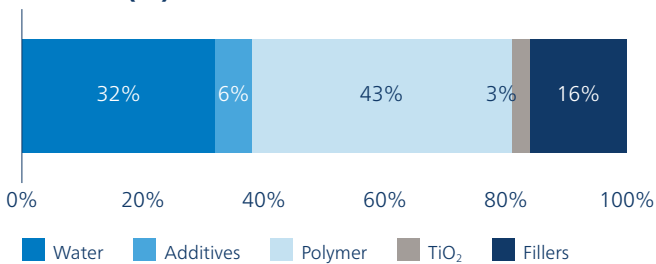
Case Study

Introducing 2.87% Omyasphere 922 S into roof coatings leads to a significant decrease in thermal conductivity and diffusivity compared to a reference coating without LWF. The high solar reflectance index leads to less heat build-up and translates to cooling energy savings. An increase in elongation at break gives the coating a higher flexibility, improving its sustainability by extending the service life of the roof coating.

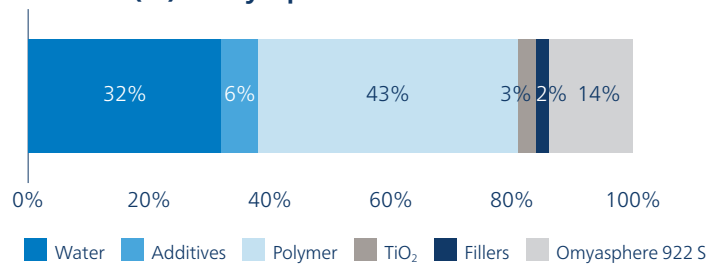
Roof Coating PVC ~ 46%	% by weight	% by weight
Water	23.09	30.58
Dispersing agent	0.40	0.53
Dispersing agent	0.29	0.38
pH regulator	0.08	0.11
Rheology modifier	0.41	0.54
Defoamer	0.11	0.14
Coalescing agent	0.58	0.77
PP glycol	2.02	2.67
Omyacarb 10 – GU	28.90	3.03
Optiwhite	2.44	3.23
TiO ₂	8.15	10.79
Acrylic polymer	32.79	43.39
Biocide	0.18	0.23
Omyasphere 922 S	-	2.87
Defoamer	0.16	0.18
Rheology modifier	0.40	0.53
Total	100	100
Density [g/cm³]	1.40	1.05



Volume (%) - Reference



Volume (%) - Omyasphere 922 S



Omyasphere is a registered trademark of Omya AG in multiple countries.

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