fily



Characteristics

Typical values	YbF₃ nano-dispersions	
Chemical formula	YbF₃	
Crystal structure	Orthorhombic	
Average Particle Size (nm)	20 & 40	
Density* (g/cm³)	8.2	
Refractive index*	1.53	
Dispersion solid content (wt.%) Depending on dispersion medium	Up to 70	
	1	

*Theoretical

Nano-dispersion Characteristics	Example 1	Example 2
Nanoparticles	YbF₃	YbF₃
Monomer	UDMA	TEGDMA
Solid content (wt.%)	30	50
Viscosity (Pa.s)	50	6.9
Shear rate (s ⁻¹)	1	1

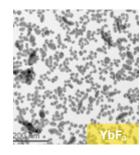
filyxio[®] YbF₃ nanoparticles in suspension main benefits:

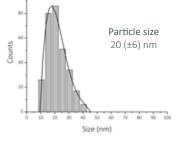
- High translucency of dental composites
- Higher depth of cure
- Low viscosity at high particle loading
- Improved flexural strength
- Higher filler load

The **type of functionalization** provided strongly depends on dispersion medium & application requirements.



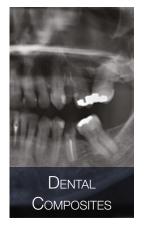
Example of particle morphology & size distribution - YbF₃





Applications

> Our dispersions contain the smallest YbF₃ nanoparticles on the market and exhibit the highest available solid contents. We advise to use these products as radiopacifying fillers in dental composites. They are compatible with all dental monomers. YbF₃ nanoparticles can also be used for the manufacturing of optical components.





Optical Components

PRODUCT DESIGN

Available dispersed in a variety of solvents & resins:

- Water
- Alcohol
- Polyol
- Acetone
- Methacrylate-based dental resin
- Custom solvent



Your solution partner for fine minerals



Baikowski[®] SA France | Poisy | & +33 4 50 22 69 02

Mathym[®] SAS France | Lyon | & +33 4 78 83 72 93

Baikowski[®] Malakoff Inc. USA | Malakoff (TX) | & +1 903-489-1910

Baikowski[®] International Corp. USA | Charlotte (NC) | & +1 704-587-7100 www.baikowski.com sales@baikowski.com



Follow us: in У 💽 稔

Sales Representative in China China | Shanghai | & +86 21.6289.2883

Baikowski[®] Korea Co, Ltd. Korea | Seoul | & +82 255.281.97

Baikowski® Japan Co, Ltd. Japan | Chiba | & +81 474.73.8150

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