

Celatom®

Diatomaceous Earth Functional Additives

Unique Mineral = Unique Performance

Celatom® diatomaceous earth (DE) functional additives have unique properties that enhance the performance of a variety of specialty papers. Celatom DE is unlike any other mineral. It is made from trillions of microscopic diatom shells which have an open, porous structure and a very consistent particle size and shape.

Specialty Papers

The unique properties of Celatom DE perform important functions as an additive or filler in a wide variety of higher-value papers.

IMPORTANT CELATOM DE CHARACTERISTICS:

- CHEMICALLY INERT
- ORGANOPHILIC AND HYDROPHILIC
- HIGH SURFACE AREA AND ABSORBENCY
- LOW BULK DENSITY
- HIGH SHEET RETENTION ~ 85 - 90%
- THERMAL STABILITY
- STRUCTURAL INTEGRITY



**Diatoms Magnified
3000X**

EP Minerals Products for Specialty Papers

	MW27	MN2	LCS-3	MN-4
Median Particle Diameter (µm)	13.0	15.0	11.0	8.0
Dry Density (g/l)	190	192	152	152
Surface Area (m ² /g)	2.5	25	30	25
pH (10% slurry)	10.0	7.0	7.5	7.0
Color	White	Off-White	Off-White	Off-White
G.E. Brightness	90	74	83	80



Filter Papers

Celatom DE can be dispersed uniformly at high loading levels in specialty filter papers, which are used worldwide in wine and juice filtration and in a variety of chemical filtration processes. The natural porosity and high surface area (25 to 75m²/gram) of Celatom DE increases the permeability of the filter sheets while simultaneously improving their solids holding capacity.



Decorative Laminates

For papers which form the decorative base layer of tiles and laminates for countertops or furniture, Celatom DE's high absorption allows good saturation of printing inks for better color and definition. Where resins are used, the porosity of Celatom DE can improve uptake and saturation. Celatom DE also provides a high bulking value and strength for the laminate structure.



Vinyl Floor Backing

The paper that forms the foundation for modern vinyl flooring and decorative vinyl tiles takes advantage of the low density and high bulking value of Celatom DE fillers. Celatom is inert and compatible with the other materials used in the flooring. It disperses easily and efficiently absorbs the binder. Celatom DE also enhances the flooring's resistance to rot and fire.



Gaskets

In automotive and industrial gaskets, Celatom DE offers excellent dimensional and thermal stability. The mild abrasiveness of the DE helps improve the seal and also aids in the removal of the gasket from the flange. Celatom DE disperses easily at high loadings in the wet end, improving the uniformity and performance of the gasket sheet material.

Friction Papers

Similar in nature to gaskets, the friction papers used in automotive and industrial clutch facings benefit greatly from the incorporation of Celatom DE at high loading levels, up to 40% or even 60%. Celatom DE provides excellent friction performance and phenolic resin uptake, and a high degree of sheet uniformity.

Cigar and Cigarette Wrappers

Celatom DE is used in high-quality cigar and cigarette wrappers to enhance sheet formation and to control burn rate. The ash from our MN grades of DE is inert and harmless.

Let EP Minerals show you how to take advantage of the unique performance of Celatom functional additives in your papermaking applications. Please contact your EP Minerals sales office or customer service line for assistance.



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