

ChemBrief



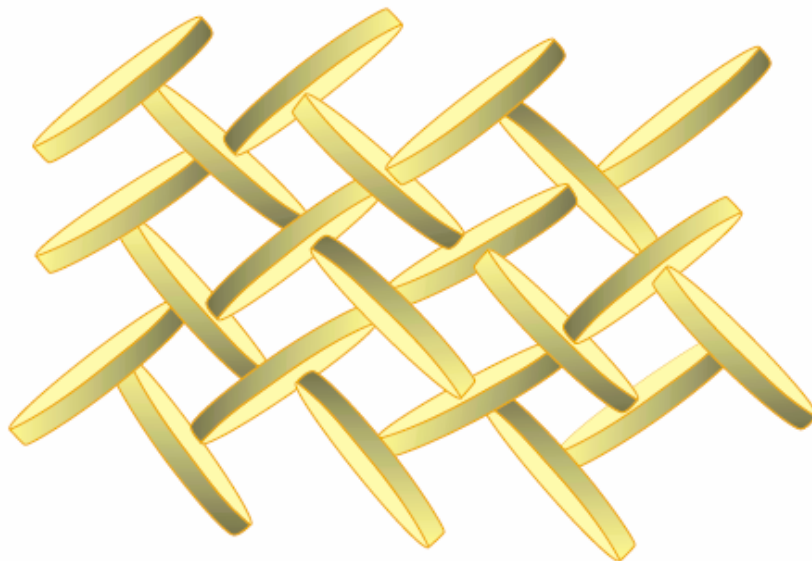
Southern Clay Products, Inc. • 1212 Church Street • Gonzales, Texas 78629
Tel: (830) 672-2891 • Fax: (830) 672-1903

Laponite® – Performance-focused attributes in rheology and specialty film forming applications.

Many times formulators are faced with a dilemma that seemingly won't go away. They struggle to find the additive that will give the attributes they want in a system but will not alter other, desirable properties. One way to overcome those problems is to find an additive that is so efficient and performance focused that it has very little impact beyond that for which it was designed. In the world of rheology and specialty film forming applications, the Laponite® family of synthetic smectite clay products for water-based applications are just such additives. These additives were developed by Rockwood Additives to meet the special requirements of systems and manufacturers requiring the highest performance.

Laponite is an entirely synthetic layered silicate that resembles the natural smectite mineral hectorite in both structure and composition. Its unique properties improve the performance of a wide range of industrial and consumer products. These properties

Gel Formation - House of Cards



Laponite gel structure forms under low shear forcing systems to remain homogenous.

Southern Clay Products, Inc.
Gonzales, TX USA
830-672-2891
www.scprod.com

Rockwood Clay Additives
Widnes, UK
44-151-495-2222

Rockwood Clay Additives
(Singapore)
65-6532-0676

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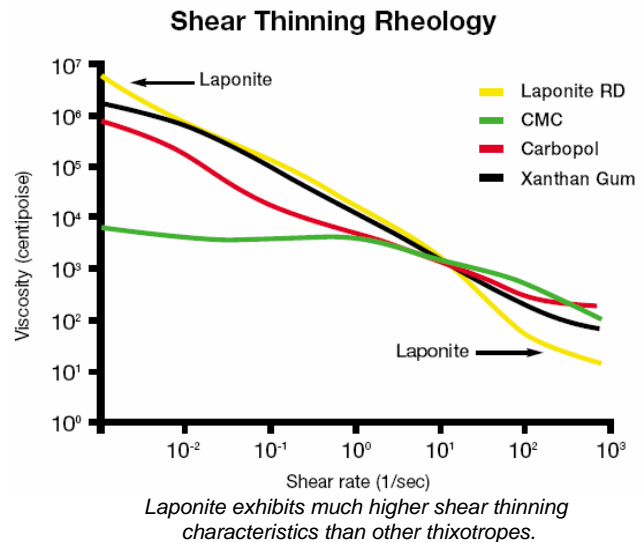
result because the primary platelet size of Laponite is only 25 nm across by 1 nm thick, significantly smaller than the naturally occurring material. This distinct “nano-size” allows Laponite to form clear gels and films.

Laponite is manufactured in a state of the art facility unlike any other in the world. We combine salts of sodium, magnesium and lithium under carefully controlled conditions of composition and temperature. This produces an amorphous precipitate that is crystallized using a subsequent high temperature treatment. The resulting product is filtered, washed, dried and milled to give a fine white powder. All operations are controlled using ISO9002 accredited manufacturing procedures to ensure that the quality and consistency of each Laponite batch remains the same from lot to lot.

Laponite has two functional uses; as a rheology modifier for water based systems and as a film forming agent. Laponite produces thickened products with a highly shear thinning, thixotropic rheology. This rheology can be used to produce sprayable household care products with significant cling or cosmetic and personal care products with unbeatable rubout characteristics. The structuring properties of Laponite produce systems with significant yield that can suspend even the heaviest pigments or solid additives. Films of Laponite are electrically conductive, thus imparting antistatic properties to the substrate on which they are coated.

Rockwood Additives and Southern Clay Products are committed to being the world leader in synthetic smectite technology. Our product understanding and manufacturing knowledge result from over thirty years of producing synthetic minerals. This experience is constantly being used to develop new and improved synthetic smectite technologies. Our manufacturing expertise ensures that these new technologies will be applied to produce world class products second to none.

Consider Rockwood/SCP for all of your natural and synthetic smectite needs.



For more information on how Southern Clay Products can assist you, please contact us at (800) 324-2891 or visit us on the internet at www.scprod.com.



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