

A WORLDWIDE INDUSTRIAL GROUP

IMERYS IS THE WORLD'S LARGEST PRODUCER OF WHITE INDUSTRIAL MINERALS, WITH A NETWORK OF PLANTS ACROSS ALL FIVE CONTINENTS, INCLUDING MAJOR SITES IN THE UK, BELGIUM, ITALY, SPAIN, USA, BRAZIL, AUSTRALIA, JAPAN AND CHINA.

IMERYS SUPPLIES MINERALS TO A WIDE RANGE OF INDUSTRIES, INCLUDING POLYMERS, PAINT, PAPER AND CERAMICS. SPECIALIST DIVISIONS SERVE EACH INDUSTRY, SO THAT OUR CUSTOMERS ALWAYS DEAL WITH PEOPLE WHO UNDERSTAND THEIR BUSINESS. THIS IS SUPPORTED BY AN ABSOLUTE COMMITMENT TO QUALITY, TO ENSURE THE CONSISTENCY AND RELIABILITY OF OUR PRODUCTS AND SERVICES.



IMERYS Performance & Filtration Minerals is a major supplier of white industrial minerals to the sealants and adhesives industry. Imerys' product portfolio is unequalled in its breadth and encompasses a full range from economical extenders to highly functional surface treated additives. Strong technical understanding of our products and their applications complements the natural value of the minerals we supply.

IMERYS investment in product and application development is a clear commitment to our customers in the adhesives & sealants industry.

IMERYS has a proven history of close technical collaboration with compounders and processors that has led to an in-depth understanding of the mineral requirements of the adhesives & sealants industry.

- Our industry focused team is dedicated to providing innovative commercial and technical solutions to our customers.
- Our European product and application development laboratories in the UK are well equipped and staffed to meet the technical requests of our customers.
- Our technical personnel have an established track record in the development of products for the adhesives & sealants industry and an in-depth understanding of minerals for these applications.

ADDING VALUE THROUGH MINERALS

IMERYS' MINERALS ARE PROCESSED AND REFINED TO COMPLEMENT OUR CUSTOMER'S PRODUCTION PROCESSES, IMPROVING THE QUALITY AND RAISING THE PERFORMANCE OF CUSTOMERS PRODUCTS. IMERYS OFFERS TAILOR-MADE SOLUTIONS BASED ON AN IN-DEPTH UNDERSTANDING OF THE MANUFACTURING PROCESS, PRODUCTION AND BUSINESS CONSTRAINTS OF THE SEALANTS AND ADHESIVES INDUSTRY.

KAOLIN

An important property in sealants and adhesives is the rheology of the formulation, both in the mixing by the producer and in application by the end user. The requirements may be different, for example, the producer may want low viscosity at high shear rates, to make mixing and dispersion faster and more efficient. In contrast, the end user may need a high viscosity at low shear rates to prevent slumping or spreading of the adhesive where it is not required.

Paper Laminating

In applications such as high speed paper laminating, the end user will want medium-high viscosity at high shear rates, this prevents splashing that would occur if the formulation had low viscosity at high shear rates.

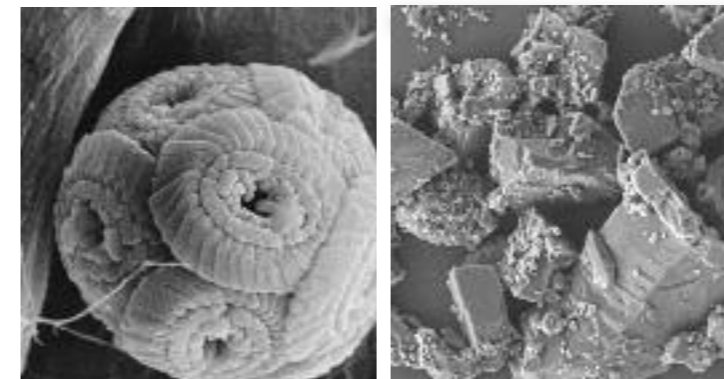
Viscosity Modification

A carefully selected kaolin with a suitable particle size and size distribution can be used to control both low and high shear viscosities during production, application and post application. The choice of kaolin will be very dependent on the customers formulation.

Kaolin is a naturally platy mineral, the platy shape can give good barrier properties in sealants by creating a tortuous path to protect the material that has been sealed.

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CALCINED KAOLIN

Polyurethane is used to compound sealants and cures following reaction with moisture. This means that during production and storage, moisture must be minimised to prevent premature curing.

The production process for calcined kaolin, in combination with the low surface hydroxyl content of calcined kaolins leads to a low moisture pick-up, resulting in excellent performance in moisture sensitive (MS) sealant applications. The particle shape of calcined kaolin, a random agglomerate of controlled particle size, makes it effective as a structure building component.

Calcined kaolin has a neutral pH, which allows it to be used in both acid and alkali formulations.

CALCIUM CARBONATE

Finely ground calcium carbonate is used in a wide range of sealant & adhesive applications to improve colour, slump rheological and tensile properties of the compound as well as acting as simple fillers in the formulation.

Some fine products, ImerSeal™ are hydrophobised with stearate to reduce moisture pick-up, improve handling and dispersion. The low moisture and low moisture pickup of ImerSeal™ gives multiple benefits;

In compounding, less or no drying of ingredients is needed, reducing energy costs and processing time, allowing producers to increase output.

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ADHESIVES & SEALANTS

CALCIUM CARBONATE | KAOLIN | MICA | APPLICATION OVERVIEW