

# E-TYPE Natural Innovative Solutions

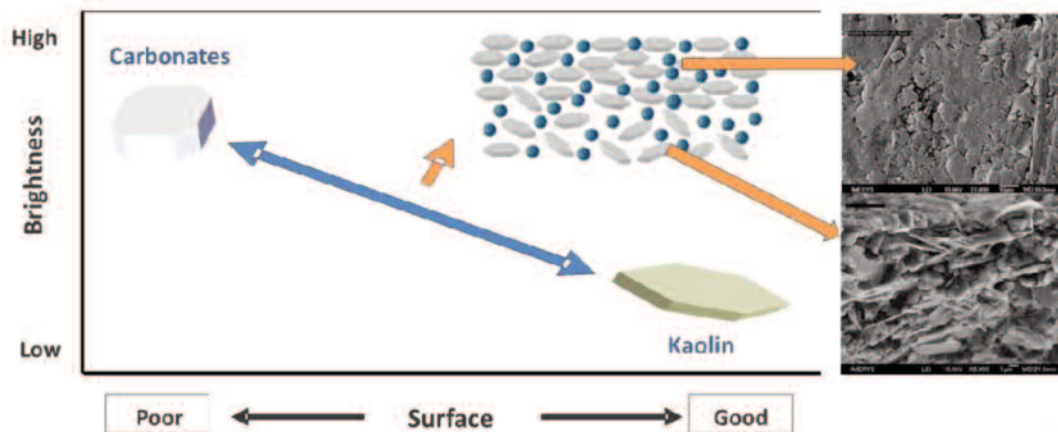


## IMERYS IS THE GLOBAL LEADER IN THE SUPPLY OF HIGH QUALITY WHITE PIGMENTS FOR THE WORLD'S PAPER INDUSTRY.

One of the main roles of a paper coating is to provide optical and physical coverage of the basepaper providing a high quality surface for printing, and it is these requirements that are at the heart of pigment selection.

The main differentiator between kaolin and carbonate in paper coating is particle shape and how this influences both the surface and bulk structure in a coating. As a general rule, higher shape pigments are used to bring the surface properties while carbonate is added for brightness and cost reduction. In most cases mixed pigment systems are used, and in these situations the interactions between kaolin and carbonate can lead to a disrupted bulk structure through reduction in packing fraction, yet still give a smooth surface through preferential surface alignment after calendering.

These effects lead to good optical and physical coverage of the base sheet together with good printability. In general these structuring effects are more pronounced the higher the aspect ratio of the kaolin and this ultimately is where the value of kaolin lies. Using mixtures of high shape kaolins and carbonates can give degrees of freedom to the paper maker to reduce costs in many circumstances. These include freedom in basepaper design, potential to reduce expensive opacifiers, reduction in binder and scope to further increase carbonate share in the recipe.



# VALUE IN COVERAGE

- The ETYPE™ products are available in a variety of particle sizes and shape factors for specific customer applications.
- The use of these platy kaolins produces bulkier structures with optically effective pore sizes, improving coating hold out and coating coverage due to the large plate diameters.
- This can allow changes to the base sheet to take advantage of this coverage.

## Premium Fine Platy Pigments

Contour™ Xtreme HS, E100™ and E170™ work well in single coated paper applications. They outperform standard delaminated or #1 clays in single coated LWC grades where coating coverage is a key driver for sheet gloss, smoothness and opacity. The improved physical coverage can allow the papermaker to change fiber source, reduce coat weight or increase carbonate share in the recipe. The improved optical coverage through the structuring with carbonate can enable reductions in base sheet bleaching or reduction in coating opacifiers. E100™ and E170™ can also be used in coated board precoat applications to improve physical coverage on darker base boards, or reduction in the white top fiber layer. They work especially well when blended with calcined clays.

## Premium Coarse Platy Pigments

Designed to provide to coating coverage and build coating bulk, E300™, E500™, and E800™ have been developed for use in pre-coating and work especially well when blended with blocky co-pigments such as GCC. The improved coverage allows papermakers to reduce calendering, improve sheet bulk or apply lower coat weight.

Pigment	GE B'ness	% <2µm	Shape	Form Available	Slurry % Solids
Contour Xtreme HS	90	97	Platy	Slurry/Dry	69-69.5
E100	88	91	V.Platy	Slurry/Dry	67
E170	88	90	V.Platy	Slurry/Dry	63.5
E300	87.5	84	V.Platy	Slurry/Dry	62
E500	87	78	H-Platy	Slurry/Dry	61
E800	87	72	H-Platy	Slurry/Dry	59.5



ETYPE

For further information then please contact one of our Sales Representatives who will be able to assist you.



Website  
[www.imerys-kaolin.com](http://www.imerys-kaolin.com)