



# Laponite® XL21

## product data sheet

### Advantages of Laponite® XL21

Laponite® develops a light and surprisingly delicate texture in formulations

Lower acid demand means products are readily stabilised at pH 5.5

Laponite® is manufactured from naturally occurring inorganic mineral salts

Not susceptible to microbial attack: Laponite® can be formulated in "preservative-free" systems

Improved stability of emulsions and suspensions

Gels and pastes readily dispensed

Free from crystalline silica

**Laponite® XL21 has been specially developed to give improved performance in personal care products formulated at pH 5.5**

### Description

Laponite® XL21 is a synthetic layered silicate. It is insoluble in water but hydrates and swells to give colourless translucent colloidal dispersions. Such dispersions can be incorporated into a wide range of personal care water based formulated products to produce highly shear thinning and thixotropic rheological properties.

### Typical characteristics

- Appearance: - free flowing white powder
- Bulk Density: - 900 kg/m<sup>3</sup>
- 2% dispersion in water: - pH 9

**INCI name:** sodium magnesium fluorosilicate

### General specifications

Property	Value	Rockwood QA Test Code
Gel strength	15g min	ELP-L-1H
Sieve Analysis	2% max >250 microns	ELP-L-6A
Free Moisture	10% max	ELP-L-5A
Lead	5mg/kg max	ELP-L-16A
Arsenic	1mg/kg max	ELP-L-17A
Specifications can be agreed to meet individual requirements		

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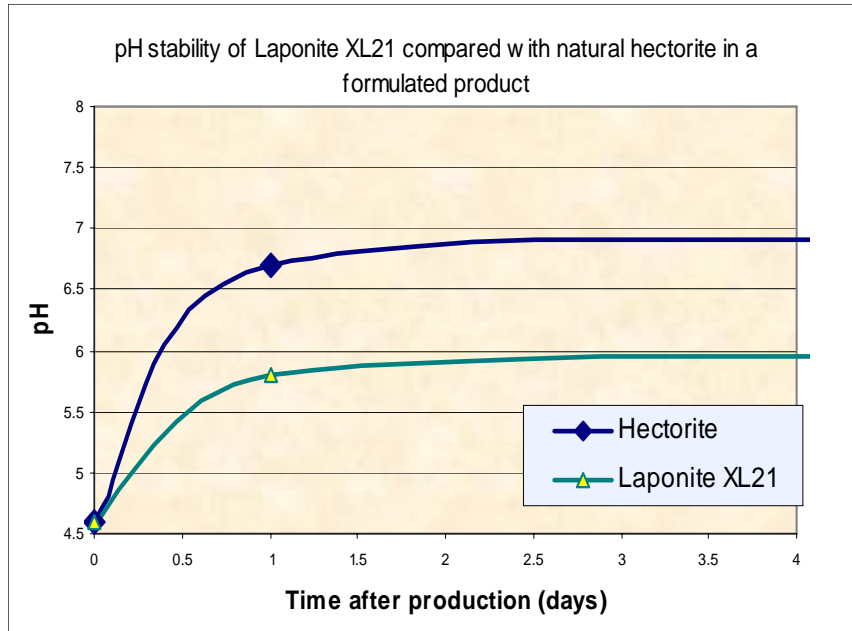
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### Applications for Laponite® in personal care

- Moisturising creams and lotions
- Sun care
- Baby care
- Depilatory creams
- Facial wash
- Shower gels
- Toothpaste
- Colour cosmetics



### pH stability with Laponite® XL21

Laponite® XL21 will impart a shear sensitive structure to a wide range of waterborne products and is particularly effective in systems formulated at “skin-friendly” pH 5.5.

The stability of Laponite® XL21 at this pH, is demonstrated in the graph above compared with natural hectorite .

Laponite® XL21 extends the potential for using Laponite® materials in a range of products formulated at pH 5.5. It has been shown that this simple model can be extended to give improved efficiency and performance in a wide range of personal care formulations.

**In a formulated product, Laponite® XL21 will develop a level of thixotropic structure that is comparable with Laponite® XLG.**

### Recommended dispersion procedure for Laponite® XL21

It is recommended that Laponite® XL21 is dispersed in water using a mechanical stirrer. The actual dispersion time will vary depending on water temperature, Laponite® solids content, and the type and speed of mixer used, but is typically complete within 30 minutes. The dispersion will be clear after this time.

### Storage

Laponite® XL21 is hygroscopic and should be stored under dry conditions, in original packaging.

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