

## Features & Benefits

## THAILAND

Nepheline Syenite micronised functional fillers and extenders are proven performance enhancers in a broad range of paints, coatings, adhesives, sealants, and inks. Excellent brightness, tint retention and weatherability can be achieved in exterior paints. Improved colour, sheen uniformity, chemical and stain resistance, and durability result when Nepheline Syenite is used in interior paint formulations.

Nepheline Syenite is easily dispersed in all conventional vehicle systems, and low oil absorption permits high loadings in adhesives, sealants, and aqueous and alkyd based paints.

Multiple grades are available to provide optimal performance in a variety of applications. While the preferred Nepheline Syenite product is application dependent, coarser grades, such as Nepheline S4 PO, offer cost effective gloss and sheen control and can add texture. The intermediate grades Nepheline S6 PO and Nepheline S7 PO offer application versatility for a wide range of architectural and industrial uses. Nepheline S10 PO is ideally suited for higher gloss coatings and is also the preferred choice for powder and clear paint systems.

Nepheline Syenite fillers are produced from nepheline syenite; a naturally occurring, silica deficient, sodium-potassium alumina silicate. Automated scanning electron microscopy confirms that Nepheline Syenite contains less than one-tenth of one percent crystalline silica. No free crystalline silica is detectable in the mineral complex.

All Nepheline Syenite grades are processed and sized with rigid adherence to ISO 9001 quality assurance programs. Consistently uniform chemistries, size distributions, and top size controls ensure improved structural and chemical performance with minimal resin demand.

## Granulometric Data & Physical Characteristics

Mean values. These do not represent a specification.

	Mesh ASTM	Size Micron	S3BL	S4BL	S7BL	S10BL		Method
Typical Mean % Retained on Individual Sieves	325	45	1.05	0.00	0.00	0.00	%	Wet Sieve
	400	38	-	0.00	0.008	0.00	%	
	500	25	-	0.03	0.026	0.002	%	
% passing		<120	100	100	100	100	%	Malvern Mastersizer
		<53	97	100	100	100	%	
		<40	91	100	100	100	%	
		<20	68	91	98	100	%	
		<10	46	58	77	96	%	
		<5	30	31	42	72	%	
		<1	6	5	6	11	%	
		<0.5	0.03	0.02	0.02	0.04	%	
Median Particle Size, D50			11.5	8.5	5.9	3.1	µm	
Particle Size, D90			37.9	19.6	13.7	7.9	µm	
Particle Size, D97			53.5	25.8	18.2	10.7	µm	
Oil Absorption			25	28	30	27	g/100gms	ISO 787-5
Brightness (ISO)			83.4	83.8	84.5	86.1		Spectrophotometer- KONICA MINOLTA
Lab Value	L		94.2	94.3	94.5	94.9		
	a		0.3	0.3	0.2	0.2		
	b		2.0	1.7	1.5	1.0		
Specific Surface Area, BET			1.7	1.9	4.4	2.2	m <sup>2</sup> /g	Micromeritics-Tristar 3000
Moisture Content			0.04	0.07	0.1	0.1	%	ASTM-C-566
pH (in 10% solution)			10	10	10	10		pH Meter-HANNA
Density			2.6	2.6	2.6	2.6	g/cm <sup>3</sup>	
Refractive Index			1.51-1.53	1.51-1.53	1.51-1.53	1.51-1.53		
Hardness			6	6	6	6		Mohs' Scale

## Chemical Analysis %

Mean values. These do not represent a specification.

SiO <sub>2</sub>	56	%
Al <sub>2</sub> O <sub>3</sub>	24	%
Na <sub>2</sub> O	8	%
K <sub>2</sub> O	9	%
CaO	2	%
Fe <sub>2</sub> O <sub>3</sub>	0.1	%

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## Availability

**Shipping Point:** Banglen, Thailand

25kg bag  
500kg bag

## For Product Information & Customer Service

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