Nepheline S

Nepheline Syenite

Norway/ Spain

Features & Benefits

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, offer cost effective gloss and sheen control and can add texture. The intermediate grades Nepheline S6 and Nepheline S7 offer application versatility for a wide range of architectural and industrial uses. Nepheline S10 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.

		S4	S6	S7	S10	Method
Condition		PO (Powder)	PO (Powder)	PO (Powder)	PO (Powder)	
D_{50}	µm	9.2	5.1	4.3	1.9	Sedigraph
D_{50}	µm	12.9	7.8	6.3	3.7	Malvern laser diffraction
Colour	L*	93.6	94.5	95.1	95.3	
	a*	0.3	0.2	0.2	0.2	
	b*	1.9	1.5	1.4	1.3	
Brightness	R457	81.5	84.4	85.4	85.6	Spectrophotometer
Moisture	%	0.1	0.2	0.2	0.4	ISO 787/2
Oil absorption	g/100g	21	22	23	31	ISO 787/5
SSA	m^2/g	1.5	2.5	3.0	4.5	BET
pH	-	10.1	10.2	10.4	10.4	ISO 787/9
Density	g/cm^3	2.6	2.6	2.6	2.6	ISO 787/10
Bulk density, compacted	g/cm^3	0.7 – 1.2	0.7 – 1.2	0.7 – 1.2	0.7 – 1.2	EN 1097-3
Refractive index		1.51-1.53	1.51-1.53	1.51-1.53	1.51-1.53	ASTM D-801
Hardness	Mohs	6	6	6	6	

Chemical Analysis

Mean values. These do not represent a specification.

	Weight-%	Method
SiO_2	56.1	XRF
Al_2O_3	24.3	XRF
Na_2O	8.3	XRF
K_2O	9.0	XRF
CaO	1.1	XRF
Fe_2O_3	0.1	XRF

For Availability, Product Information & Customer Service

For more information regarding these products, please contact your local Sibelco representative or Sibelco via https://www.sibelco.com/contact-us/.

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