



Nepheline Syenite

Filler Grade

A performance enhancer and has the following functions/ advantages:

- ▶ improves weatherability
- ▶ improves abrasion, scrub, stain, mildew and chalking resistance
- ▶ high brightness (> 92)
- ▶ great UV protection to resin and pigment system, and high yellowing resistance
- ▶ low tint strength even at high loading that maximizes the color strength
- ▶ low refractive index allows for high loading in transparent and translucent coatings and stains
- ▶ good dispersibility in both water and solvent systems. Low viscosity even in high pigment loading
- ▶ stable pH and chemical inertness
- ▶ low vehicle demand and exceptional resistance to frosting
- ▶ low oil absorption, which in turn results in low viscosity even at high loading

Chemical Analysis

SiO ₂	~ 61.50%
Al ₂ O ₃	~ 20.80%
Fe ₂ O ₃	< 0.15%
TiO ₂	~ 0.03%
Na ₂ O	~ 8.40%
K ₂ O	~ 6.10%
CaO	~ 0.75%
MgO	~ 0.10%

These oxides primarily exist in nepheline and alkaline feldspar, and there is no free crystalline silica present in APNS.



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Typical Properties	APNS 4	APNS 5	APNS 7	APNS10	APNS 12
75µm	100%	100%	100%	100%	100%
45µm	99.9%	100%	100%	100%	100%
30µm	98.5%	99.5%	99.5%	99.8%	100%
20µm	90%	93%	99%	99.5%	100%
15µm	82%	85%	95%	98%	100%
10µm	63%	65%	85%	97%	99.9%
5µm	35%	30%	50%	80%	90%
2µm		13%			48%
D50 (µm)	7.0	8.0	4.5	2.5	2.1
Bulk Density	0.8	0.8	0.6	0.6	0.5
Bulk Density	0.8	0.8	0.6	0.6	0.5
Oil Absorption (g/100g)	~22	~22	~25	~31	~35
Whiteness	81	82	83	85	86
CIELAB Color L:	93.3	93.3	94.1	94.4	94.6
CIELAB Color a:	-0.01	-0.01	-0.01	-0.02	-0.02
CIELAB Color b:	2.59	2.59	2.26	2.26	2.2
Hardness (mohs)	6.0	6.0	6.0	6.0	6.0
pH	8.9	8.9	9.1	9.2	9.3
Moisture	0.1%	0.1%	0.15%	0.15%	0.15%