

Ultrafine MINEX for automotive rubbing, cleaning and detailing compounds

What is Nepheline syenite?

COVIA's MINEX micro-abrasives are produced from nepheline syenite; a naturally occurring, silica deficient, sodium-potassium alumina silicate. MINEX is the crystalline silica-free alternative to mineral fillers and ingredients containing ground silica in automotive rubbing, cleaning and detailing compounds. Formulators have been adopting low crystalline silica MINEX due to stricter OSHA regulations on Respirable Crystalline Silica (RCS), and due to MINEX's unique combination of moderate hardness, morphology and engineered particle size distributions.





 Low
 ► High

 0
 25
 5
 10

 0
 0
 0
 0

Figure 3. Binder demand, oil absorption

Acidic		Neutral		Basic
1	4	7	10	14



Figure 2. MOHS hardness







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MINEX[®] combines high performance and safety/regulatory compliance in automotive rubbing, cleaning and detailing compounds

Benefits:

- Ideal for home consumer products
- MINEX is exempt from California Prop 65
- Safer replacement for abrasives like silica, pumice, perlite and other minerals that can contain respirable silica or fibers
- FDA approved for indirect food contact applications
- Moderately hard, finer particle size distributions are ideal for removing stains, oxidation and rubbing out scratches and scuffs
- Precision top-size control for new ultrafine sizes for consistent performance
- Wide Range of fine to coarse grit particle size distributions to dial abrasiveness from aggressive to buffing and polishing action
- Non-diminishing abrasives
- pH range is ideal for good suspension and in emulsion and pastes
- Surface chemistry and oil absorption allows for rapid wetting, high loading and dispersion in liquids.



a) Standard Nepheline syenite

b) Narrow PSD Nepheline syenite



Figure 5. Morphology





Figure 6: MINEX particle size distribution

Figure 7: MINEX Einlehner Abrasion as a function of particle top size

Multiple grades are available to provide optimal performance in a variety of applications. Performance of rubbing, cleaning, and detailing compounds can be dialed through the choice and combination of engineered particle size distribution MINEX grades.

For more information about MINEX functional fillers, please call: 800.243.9004 or email: Sales@CoviaCorp.com.



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