

- acicular** An **acicular** particle has a length greater than its diameter, forming a needle-like structure.
- aspect-ratio** the degree to which the length of a needle-like structure is greater than the diameter
- chemical treatment** process of adding coupling agents or surface modifiers to a particle surface to optimize the performance of wollastonite in a matrix. Surface chemistry is important in applications where wollastonite is added as a reinforcement in composite materials. Chemical or surface modification also enhances mechanical properties, reduces shrinkage, increases weather resistance, and lessens or eliminates surface or internal defects.
- surface treatment** see 'chemical treatment'
- tripoli** a soft, friable, porous, double refracting silica of the chalcedony variety. The particles have no sharp edges or corners, and an average size of less than 10 microns. The silicon oxide content varies from 94-98%, with trace amounts of other oxides present. The material's unique physical form makes it suitable for a wide range of value added functions. Examples include: as a cut and color agent in rubbing and buffing compounds, as a texturizing agent in paints, coatings, and cement, as a viscosity control agent, as an economical extender for expensive resins, and as a mild abrasive in commercial and industrial cleansers.
- wollastonite** a naturally occurring white, non-metallic mineral with an acicular or needle-shaped crystal structure (CaSiO_3) Because of its unique cleavage properties, wollastonite beneficiates into needle-shaped particles of varying aspect ratio, which NYCO controls with leading-edge processing techniques. This characteristic imparts significant strengthening properties and is of considerable importance in wollastonite's diverse market applications. The brightness and whiteness of wollastonite also enhances its use in certain filler and ceramic applications. Finally, wollastonite is completely inert and non-carcinogenic with low biodurability, and its dusts are biosoluble, qualities that have made it a recognized substitute for asbestiform and man-made fibres.