

"Calidria" Asbestos Pellets

[The following article was prepared by John L. Myers, Marketing Manager for Calidria Asbestos, Metals Division, Union Carbide Corporation, Danbury, Conn. Mr. Myers will gladly handle any requests for samples or additional information regarding Calidria Asbestos pellets and other products.]

An unusual asbestos orebody, one of the world's largest mineral deposits, is located in California near Coalinga. This deposit is unique in that it contains only Chrysotile asbestos and consists entirely of the short-fiber mineral, equivalent to Canadian Grade 7 or shorter. Union Carbide Corporation began development of this deposit several years ago; however, normal markets for the mineral were found to be limited since it occurred in only one basic fiber length. Development and use of a proprietary, hydraulic beneficiation process subsequently enabled Union Carbide to create a series of asbestos products which were completely new to the industry. Although some of these products are used in conventional applications, many new uses have been found for this extremely versatile material.

The most important innovation which Union Carbide has contributed to the industry is pelletized asbestos. Asbestos pellets, marketed under the trade name "Calidria," were introduced primarily as a means to minimize asbestos dust. Pellets also cost less to ship and can lead to savings in handling and operating costs.

"Calidria" Asbestos pellets are nominally $\frac{3}{8}$ " in diameter by $\frac{3}{4}$ " long and they are available in bags on unitized pallets or in hopper cars. They have a bulk density of 44 pounds/ft³ (50 ft³/ton) and a 50-55° angle of repose. Pellets can be handled and conveyed by pneumatic or mechanical means, thereby permitting automatic or semi-automatic operations. The use of a closed transfer system, from hopper car storage to point of use, could eliminate exposure to asbestos dust. The pellets are friable and can be dispersed in dry form or in aqueous or resinous systems with conventional grinding equipment. No binder is used to make the pellets and they contain

over 95% fiber, a significantly higher amount than any other short fiber Chrysotile product.

Several grades of "Calidria" Asbestos pellets are available from Union Carbide Corporation for many applications, including: floor tile, drilling fluids, friction materials, plastics, roofing compounds, papermaking, rubber compounds, mineral board (ceiling tile), gypsum compounds and coatings. "Calidria" products are also available in the conventional powder or open-fiber form.

The advantages of the unique Coalinga ore, the proprietary beneficiation process and continuing research have enabled Union Carbide to introduce several products for applications new to the Asbestos Industry. These products include RG-144 which is a highly-refined fiber used as a thixotrope in epoxy and other resins, as a reinforcing filler in PVC and nylon and as a thickener in coating compounds.

"Calidria" Asbestos RG-244 is a surface-coated fiber designed for use as a thixotrope in polyester laminating resins and gel coats. It is also used for sag and viscosity control in vinyl plastisols, organosols and many other systems. RG-244 is less expensive and, in most cases, outperforms pyrogenic silica at similar loadings.

Two titanated asbestos products are now available from Union Carbide. Introduced several years ago as a TiO₂ extender or replacement in papermaking, "Calidria" Asbestos T-135 is now being used in spray acoustic and other interior coatings, and as a combination filler-reinforcer in non-black rubber compounds. T-135, available in pellets or open fiber, is made from highly-refined asbestos and anatase TiO₂.

A similar product, CG-135, has rutile TiO₂ dispersed along the fibers. This product is being introduced for use in latex paint coatings and similar applications as a partial replacement for TiO₂.

"Calidria" Asbestos products are available from the processing mill in King City, California, from several warehouse locations throughout the United States, and in several foreign countries.