PLAINTIFF'S EXHIBIT

UC-5005

New High Purity Asbestos

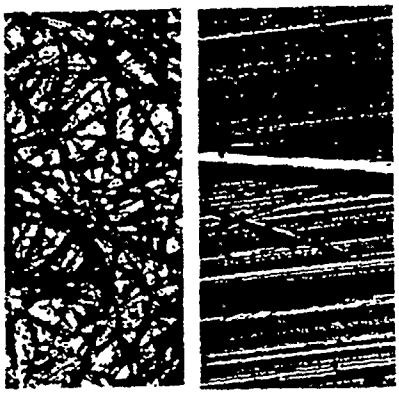
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High purity and proprietary processing are two factors that reportedly serve to make Union Carbide's new Calidria asbestos a distinctive and versatile product. Available in three basic forms, fiber, coloidal and modified, the material can be used as a viscosity control additive, thixotrope, extender, and reinforcing agent, as well as in other more specific applications.

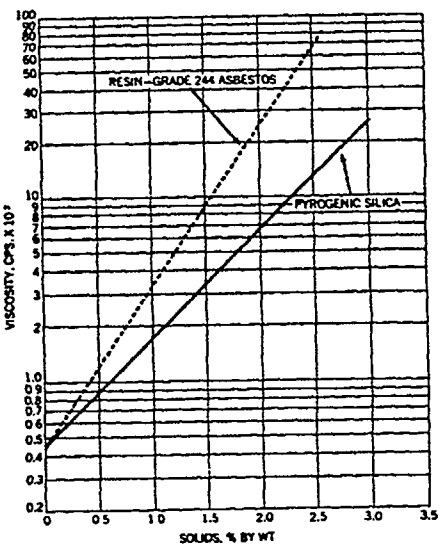
This chrysotile asbestos is obtained from a unique short-fiber desposit located in California, which is reportedly free of hard consolidated rock masses, typical of other asbestos ores. The ore features random fiber orientation, point contact and a high, 60% fiber content. In the conventional Canadian deposits, the fibrils in a bundle are all in linear contact and basically straight, a pattern which reduces the efficiency of each fibril (see photo). The advantage inherent in the chrysotile raw ore is reportedly enhanced by a proprietary "wet process" which breaks down the fiber bundles, removes rocks and other foreign contaminants, and provides 98% liberated, efficient fibrils of uniform quality. It is available in ground form or in pellets, for economy and convenience in shipping and handling. There are different grades available at different prices depending on end-use requirements.

Viscosity controls for polyester

Resin-grade 244, a modified grade of Calidria asbestos, is used as a thickening agent and thixotrope in polyester spray-up and hand lay-up laminating resins, in vinyl resin sealants, and in a variety of plastisols and organosols used in adhesives, coatings and mastics (see graph). It reportedly offers ease of dispersion with non-settling, stable viscosity properties. It costs 60¢/lb and is generally used in quantities of 0.25-0.50%, as compared to a typical quantity of 1% of silica. This grade will not contribute color or opacity in most systems, a characteristic that makes it especially well suited for polyester gel coats.



Micrograph of typical Calidria asbestos fibers showing random orientation (left), and typical Canadian asbestos fiber showing straight bundles (right).



Thickening efficiencies of asbestos and silica in polyester resins.

At Fiberfab, a div of Velocidad, Inc., Santa Clara, Calif., resin grade 244 is used instead of pyrogenic silica as a thixotrope in polyester gel coats for fiber glass car bodies. One of the most important advantages reported is improved economy. The asbestos costs about half as much as the silica and is used in smaller quantities to obtain better results. The standard 800 lb gel coat batch uses only 10 lb of R-G 244, where formerly 14 to 20 lb of silica had been used. This is said to result in a savings of over $10 per batch. The asbestos is reportedly easier to dispense, permits more rapid wetting without fluffing up, makes spraying quicker and easier, and enhances final finish.

Viscosity controls for epoxy

Resin-grade 144 asbestos is used as a viscosity control in epoxys (see polyester chart), vinyl plastisols, asphaltic compounds, polysulfide and butyl rubber sealants, silicone and casein adhesives. Unlike other thixotropes, R-G 144 can be used effectively with amine hardeners used with epoxy systems and has a long shelf life. Because of its fibrous geometry, this grit-free and non-abrasive material provides whisker reinforcement in rigid and plasticized PVC, nylon molding materials and some other resin systems. It costs 10¢/lb, as compared to 80¢-$1.00/lb for silica, and is generally used in quantities of 1-1½%.

R-G 144, when used as a whisker reinforcement in nylon 66, is said to improve tensile and flexural properties and heat distortion temperature. Tensile strength, for example, is more than doubled by the addition of asbestos at 20% by weight in the molding compound (tensile strength at 73 F for typical nylon 66 is 10,000 psi; reinforced it stands at 21,300). Heat distortion temp at 264 psi goes from 150 to 465 F, and flexural strength from 13,000 to 32,200 psi at 73 F.

Calidria asbestos is also available in a standard fiber grade series for use in vinyl asbestos floor tile. It reportedly provides dimensional stability and high brightness.

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