

Product Stewardship Summary

PTFE Molding Powders

PTFE Fine Powders

PTFE Dispersions

Uses:	<p>Daikin PTFE (PolyTetraFluoroEthylene) products are well suited for a variety of demanding chemical, mechanical, electrical and non-stick surface applications. PTFE is available in three grades: molding powders, fine powders, and dispersions.</p> <p>PTFE molding powders are excellent, fine cut resins typically used for packings, gaskets, diaphragms, bellows, corrosion-resistant linings, piping components, pump parts, O-rings, V-rings, bushings, slide bearings, insulating skived tape, insulating sleeves, terminals, connectors, sockets, spacers, electronic parts and laboratory equipment.</p> <p>PTFE fine powders are soft, white polymers that are produced from PTFE aqueous dispersions. Some typical uses are insulated electrical wire, electric wire insulation material, electric circuits, transformers, electric motors, industrial wiring, high temperature wiring, electric furnaces, vacuum tubes, wiring subject to corrosive chemical environments, sealing tape for threaded pipe joints, wraps for chemical and heat resistance insulation of wire or coil, film, pump and valve parts, terminals, bushings, outer insulators, and hoses and tubes for fuels, high temperature or corrosive fluids, foods, chemicals, oil hydraulic equipment, and push-pull cables.</p> <p>PTFE dispersions are milky white dispersions of stabilized minute particles of PTFE obtained by emulsion polymerization of Tetrafluoroethylene. Typical uses are manufacture of cast films, glass fabric laminates, battery binders and impregnating porous materials. PTFE dispersions can also be formulated into release coatings by adding fillers, adhesion agents, pigments and other additives.</p>
Physical and Chemical Properties:	<p>Daikin PTFE fine powders, molding powders, and dispersions are completely inert to attack by all chemicals except high-temperature, high-pressure elemental fluorine gas, molten alkaline metals and chlorine trifluoride.</p> <p>PTFE offers a broad range of desirable characteristics, including chemical stability, excellent electrical properties, heat resistance, chemical resistance, non-sticking and low friction properties, and dielectric characteristics. It also possesses an excellent non-sticking quality which prevents most adhesives from adhering to it.</p>
Health and Environmental Effects:	<p>Fluoropolymers are known for chemical stability and low reactivity. These materials have demonstrated little if any toxicological activity.</p>
Exposure Effects of Decomposition Products:	<p>When PTFE is heated to temperatures above 260°C, some decomposition products may be given off. These decomposition products may be harmful, and inhalation of these fumes must be avoided. Inhaling thermal decomposition products could result in chills, headaches, nausea, breathing discomfort, cough or sore throat.</p>
Processing Precautions:	<p>Ovens, process equipment and working area must be adequately ventilated. Normal full clean room clothing should be worn, as well as safety glasses with side shields or goggles.</p>
Additional Resources:	<p>Guide to the Safe Handling of Fluoropolymer Resins, published by SPI (The Safety of Plastics Industry)</p> <p>Daikin Product Information</p>
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