

Dyneon™ Custom PTFE Compounds



A 3M Company

***Setting New Standards
for High-Performance
Fluoropolymer Compounds***



Nobody Offers a More Comprehensive Line of PTFE Compounds

Dyneon, a 3M company, is the industry leader in formulating PTFE compounds.

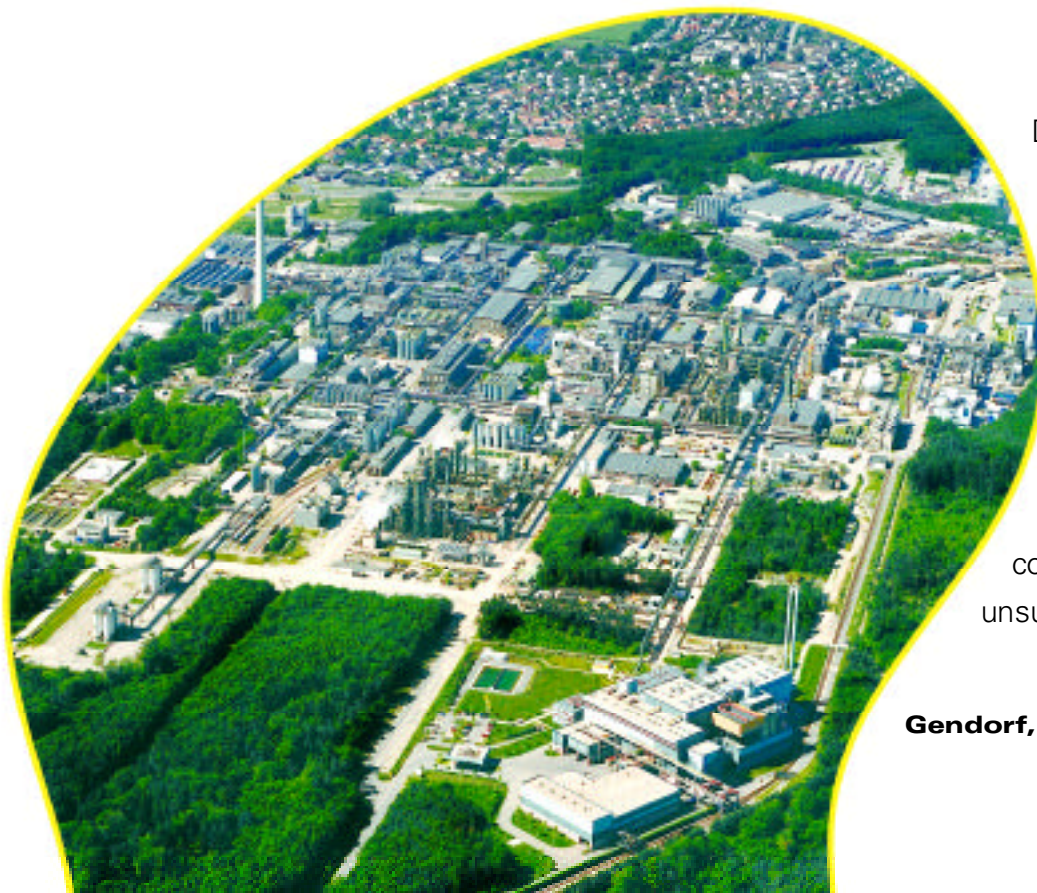
Using the highest quality resins, pigments and additives from the world's leading producers, we formulate compounds that offer enhanced wear resistance, lower deformation-under-load, improved abrasion resistance, excellent sliding properties, and extended product life.

Dyneon's technical expertise has resulted in a selection of more than 2,200 application specific compounds—the single most extensive selection in the world. If a custom designed compound is required, Dyneon will formulate it—whatever the quantity—and deliver it when you need it.

It's that simple.



Aston, PA



Dyneon operates custom PTFE compounding facilities in Aston, PA and Houston, TX as well as in Kerkrade, The Netherlands and Gendorf, Germany. With global resources and innovative product development technologies, customers can depend on Dyneon for superior leading edge resins and compounds—backed by comprehensive technical support and unsurpassed customer service.

Gendorf, Germany

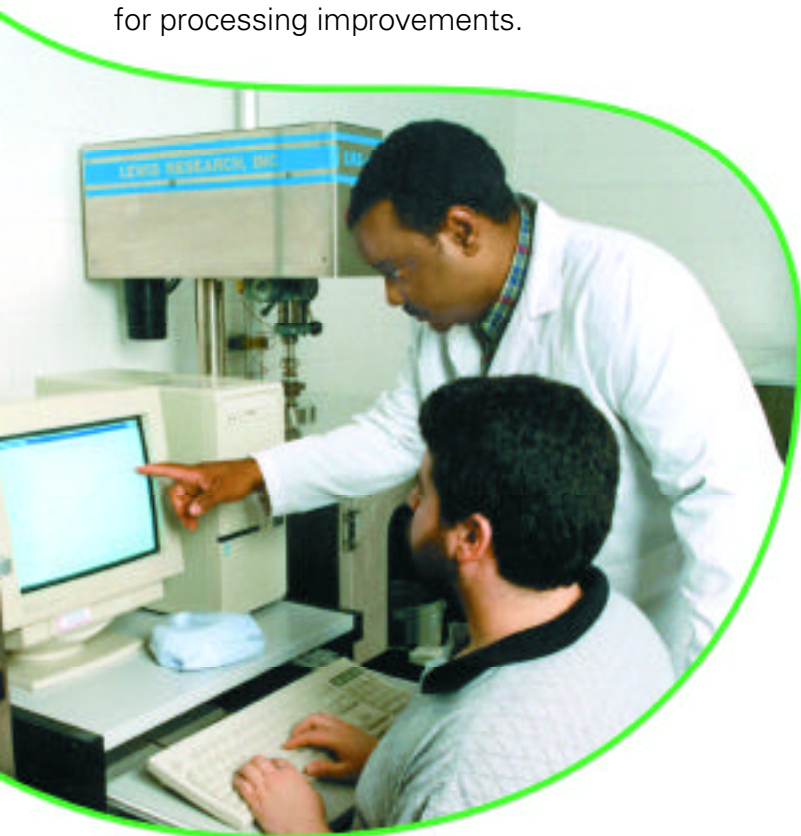
Application and Compound Product Development

Dyneon believes in building partnerships with its customers. On the basis of specific application requirements, process conditions, or material characteristics, our technical service representatives can assist customers with product design. In a given situation, we may recommend a compound from Dyneon's broad array of formulations or we may custom design a new one.

Dyneon Provides Effective Solutions for All Your Compounding Needs.

Customer Process Evaluation

Dyneon is available to review molding and sintering process controls and conditions, troubleshoot, and provide recommendations for processing improvements.



Component Analysis

Dyneon can analyze compounds or finished parts to determine the type and quantity of constituent resins, fillers, and/or pigments. For example, color content can be examined to determine pigment type, allowing a color formulation to be recommended that matches the color exactly, whatever the processing method.

Failure Analysis

In the event of an unexpected part failure, Dyneon can analyze the design of the part, review the material selection, evaluate the process conditions, and offer recommendations to correct the problem.

Comprehensive Testing

Dyneon offers a broad range of tests, including specific gravity, tensile strength, elongation, shrinkage, particle size analysis, thermal gravimetric analysis, microscopic examination, permeation, and melt flow.

Additional in-house capabilities include wear (tribology) testing, deformation-under-load, thermal conductivity, differential scanning calorimetry, and thermomechanical analysis. Contamination tests include infrared spectrophotometry and video microscopy. Also, molded billets can be skived to check for film contamination.

Fluoropolymer Resin Development

On-going development efforts at Dyneon's laboratories are resulting in new fluoropolymer resins designed to meet ever-changing customer requirements. Recent developments include Dyneon™ TFM™ PTFE, a chemically-modified PTFE that imparts significant performance enhancements when used as a base resin in compounds.

Other Dyneon™ PTFE Products

Dyneon virgin PTFE resins are distinguished for their quality and consistency. Many are FDA compliant and all are produced according to ISO 9001 standards. These products are available as granular resins, fine powders, dispersions, and micropowders.

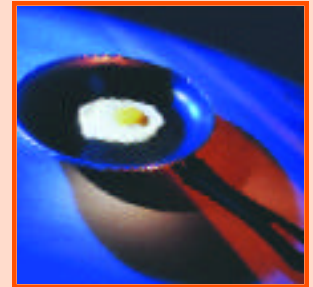
- **Dyneon 1000 Series Granular Resins**

Dyneon PTFE granular resins are available in standard-flow and free-flow grades for compression molding, ram extrusion, automatic molding, and isostatic molding.



- **Dyneon TF 5000 Series Dispersions**

A broad range of dispersions are available for impregnating yarns, coating fabrics, and treating metal surfaces.



- **Dyneon™ TFM™ PTFE Granular Resins**

This chemically-modified form of PTFE offers significantly improved deformation, optical, and welding properties, as well as reduced permeation and a broad processing range. Dyneon TFM PTFE products are available in standard-flow and free-flow grades in both compounded and virgin form.



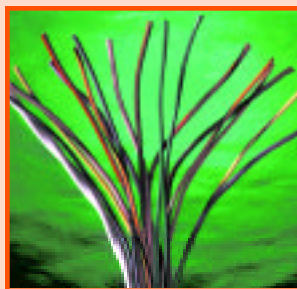
- **Dyneon TF 9000 Series Micropowders**

These very fine particle PTFE powders are typically used as additives for thermoplastics, lubricants, printing inks, paints and coating systems to improve wear resistance, lubricity, and anti-stick characteristics.



- **Dyneon TF 2000 Series Fine Powders**

Products for paste extrusion are available in several grades for manufacturing cable insulation, tapes, and thin-walled tubing.



- **Micropowders**

These PTFE micropowders can be easily dispersed in dry or liquid media for use as additives in thermoplastics, thermosets, and thermoplastic elastomer resin systems. They provide improved lubricity, reduced friction and wear, and outstanding chemical resistance.





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Important Notice:

Because conditions of product use are outside Dyneon's control and vary widely, user must evaluate and determine whether a Dyneon product will be suitable for user's intended application before using it. **The following is made in lieu of all express and implied warranties (including warranties of merchantability and fitness for a particular purpose): If a Dyneon product is proved to be defective, Dyneon's only obligation, and user's only remedy, will be, at Dyneon's option, to replace the quantity of product shown to be defective when user received it or to refund user's purchase price. In no event will Dyneon be liable for any direct, indirect, special, incidental, or consequential loss or damage, regardless of legal theory, such as breach of warranty or contract, negligence, or strict liability.**

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