



Dyneon™

TFM™ 4213

TFM PTFE Compound

Features

- Dyneon™ TFM™ PTFE Compound with 15 % electro graphitised carbon
- Free flow compound
- Typical applications:
 - Seals
 - Bushes
 - Piston rings

Typical properties*

Property	Test Method	Unit	Value
Bulk density	ISO 12086	g/l	770
Average particle size	ISO 12086	µm	575
Specific gravity	ISO 12086	g/cm ³	2,13

Mechanical properties*, on sintered moldings

Tensile strength	ISO 12086	MPa	19,0
Elongation at break	ISO 12086	%	350
Deformation under load (15 MPa; 100 h load, 25 h relaxation; 23 °C)	Similar to ASTM D 621	%	3,0

*average values, measured according to ISO 12086 on 1,0 mm skived film, perpendicular to molding direction at 23 °C.

Recommended processing procedures

If transport or storage temperatures are too high the material can agglomerate in its container. In such cases, it is advisable to store the material for 48 hours at below 23 °C and then to sieve it (mesh size 4 mm) before filling the mold. To achieve optimum properties, compression molding should be carried out within a temperature range of 23 °C to 26 °C and a humidity range of 45 % to 55 % and a pressure of 50 MPa. The sintering temperature should be in the range of 370 °C to 375 °C.

Supply form

Dyneon™ TFM™ 4213 PTFE compound is supplied in moisture and dust tight plastic drums.

Capacity per drum:	25 kg
Order quantity per pallet	300 kg

Dyneon™ TFM™ 4213 PTFE Compound



Storage and Material Handling

Dyneon™ TFM™ 4213 can be stored for a relatively long period of time. It should preferably be stored in a clean, dry place at a temperature of less than 30 °C. Before processing it is advisable to store the material in the sealed boxes for 24 hours in the production area. This is particularly important when ambient temperature is low; in such cases the material should be conditioned for up to 72 hours in the production area in the temperature range as recommended.

Safety/Toxicology

This is a TFM PTFE material, so normal precautions observed with TFM PTFE should be followed. Before processing this product, consult the Material Safety Data Sheet and follow all label directions and handling precautions. General handling/processing precautions include: (1) Process only in well-ventilated areas; (2) Do not smoke in areas contaminated with powder/residue from these products; (3) Avoid eye contact; (4) After handling these products wash any contacted skin with soap and water. (5) Avoid contact with hot fluoropolymer. Potential hazards, including evolution of toxic vapors, can exist if processing occurs under excessively high temperature conditions. Vapor extractor units should be installed above processing equipment. When cleaning processing equipment, do not burn off any of this product with an open flame or in a furnace.

Our Worldwide Commitment to Quality

Indicative of our commitment, most Dyneon design, development, production and service facilities have achieved global quality management certification. Production facilities have also received certification for their environmental management system. Please see the Dyneon website (www.dyneon.com) for the most up-to-date certification details.

Important Notice

General recommendations on health and safety in processing and on measures to be taken in the event of accident are detailed in our material safety data sheets.

You will find further notes on the safe handling of fluoropolymers in the PlasticsEurope brochure „Guide for the safe handling of Fluoropolymers Resins“ (Association of Plastics Manufacturers in Europe, Box 3, B-1160 Brussels) and in the brochure „Guide to the Safe Handling of Fluoropolymers Resins“ (Fluoropolymers Division of the Society of the Plastics Industry, Inc., 1801 K Street NW, Suite 600K, Washington, D.C. 20006, USA).

All information set forth herein is based on our present state of knowledge and is intended to provide general notes regarding products and their uses. It should not therefore be construed as a guarantee of specific properties of the products described or their suitability for a particular application. 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 quality of our products is warranted under our General Terms and Conditions of Sale as now are or hereafter may be in force.

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The present edition replaces all previous versions. Please make sure and inquire if in doubt whether you have the latest edition.

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