



Technical Information



Dyneon™

PFA 6505T Z

Fluorothermoplastic

Features

- Wide service temperature range
- Excellent, almost universal resistance to solvents and chemicals
- Extremely high weathering resistance and UV stability
- Excellent electrical insulation properties
- High limiting oxygen index: Does not support combustion
- Smooth surfaces
- Good non-stick characteristics
- Good low-friction properties
- Broad processing window
- Improved mold release property
- Improved stress crack resistance
- High transparency

Typical properties*

Property	Test Method	Unit	Value
Specific Gravity	DIN EN ISO 12086	g/cm ³	2.15
Melting Point	DIN EN ISO 12086	°C	310
MFI (372 °C/5 kg)	DIN EN ISO 1133	g/10 min	5
LOI	ASTM D2863	%	> 95

Mechanical properties*

Hardness Shore D	ASTM D2240/ISO 868		60
Tensile at break	DIN EN ISO 527-1	MPa	30
Elongation at break	DIN EN ISO 527-1	%	410
Flexural Modulus	ASTM D790	MPa	550

*typical values

Introduction

Dyneon™ PFA 6505T Z Fluorothermoplastic (a fully fluorinated copolymer of tetrafluoroethylene and perfluorovinylether) has exceptional temperature resistance, excellent electrical properties and excellent chemical inertness and weather resistance. It is used in molded valves, pumps, tanks, filters and pipes, in heat trace cables and in wire for appliances.

Processing

Dyneon™ PFA should be processed according to the standard conditions outlined in the Dyneon PFA Processing Guideline Brochure. All machine parts coming into contact with the melt should be made from highly corrosion resistant materials – usually high-nickel alloys such as Inconel 625, Haynes 242, Hastelloy C and Reiloy. The normal chrome-nickel steels, such as 1.4571, have only limited suitability.

Processing temperatures (melt temperatures) up to about 400 °C are possible, depending on the particular process and part being produced. In injection molding, mold temperatures of up to 250 °C are required. The machine temperature control system should be as precise and responsive as possible.

Dyneon™ PFA 6505T Z Fluorothermoplastic, with a Melt-Flow-Index (372 °C/5 kg) of 5 g/10 min is designed for processes where the 2 MFI resin is less suitable due to its tendency to show melt fracture when extruding articles with thin cross sections or long flow paths, at high extrusion pressures.

Supply form

Dyneon™ PFA 6505T Z Fluorothermoplastic will be supplied in pellet form. Container size: 50 kg cardboard carton containing two 25 kg PE bags.



Dyneon™ PFA 6505T Z Fluorothermoplastic



Storage and Material Handling

Dyneon™ PFA 6505T Z Fluorothermoplastic can be stored for a relatively long period of time provided it is stored in a clean, dry place. Dyneon™ PFA 6505T Z Fluorothermoplastic is hydro-phobic and generally does not require drying before processing unless high humidity conditions create surface moisture adsorption.

Safety/Toxicology

This is a fluorothermoplastic material, so normal precautions observed with fluorothermoplastic should be followed. Before processing these products, 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

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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General recommendations on health and safety in processing, on work hygiene 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 brochure "Guide for the safe handling of Fluoropolymers Resins" by PlasticsEurope, Box 3, B-11160 Brussels, Tel. +32 (2) 676 17 32.

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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