



Dyneon™

Fluorothermoplastic

PFA 6515 T

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

Introduction

Dyneon™ PFA 6515 T fluorothermoplastic (a fully fluorinated copolymer of tetrafluoroethylene and perfluorovinylether) has exceptional heat resistance, excellent electrical properties and excellent chemical and weather resistance. It is used in molded valves, pumps, tanks, filters and pipes, in heat trace cables and in wire for appliances.

Typical properties*

| Property | Test Method | Unit | Value |
|-------------------|-------------|-------------------|-------|
| Specific Gravity | ASTM D792 | g/cm ³ | 2.15 |
| Melting Point | ASTM D4591 | °C | 310 |
| MFI (372 °C/5 kg) | ASTM D1238 | g/10 min | 15 |
| LOI | ASTM D2863 | % | > 95 |

Mechanical properties*

| | | | |
|---------------------|------------|-----|-----|
| Hardness | | | |
| Shore D | ASTM D2240 | | 60 |
| Tensile at break | ASTM D638 | MPa | 26 |
| Elongation at break | ASTM D638 | % | 450 |
| Flexural Modulus | ASTM D790 | MPa | 620 |

*typical values

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 Hastelloy C, X-alloy, Reiloy and Inconel 625. 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 6515 T fluorothermoplastic, with a Melt-Flow-Index (372 °C/5 kg) of 15 g/10 min is a material with a low viscosity and is used in high shear processes like wire and cable extrusion and injection molding.

Dyneon™ PFA 6515 T Fluorothermoplastic



Supply form

Dyneon™ PFA 6515 T fluorothermoplastic will be supplied in pellet form.

Container size:

- 50 kg cardboard carton containing two 25 kg PE bags

Storage and Material Handling

Dyneon PFA 6515 T can be stored for a relatively long period of time provided it is stored in a clean, dry place. Dyneon PFA 6515 T is hydrophobic 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.

Management systems

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 APME brochure „Guide for the safe handling of Fluoropolymers Resins“ (Association of Plastics Manufacturers in Europa, 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).

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