

3M™ Dyneon™

Fluoroplastic PFA 8502ESDZ

Product Description

3M™ Dyneon™ Fluoroplastic PFA 8502ESDZ is an electrostatic dissipative fluorothermoplastic compound consisting of a fully fluorinated PFA base polymer and an electroconductive carbon black. The product has specifically been developed for transfer moulding.

Special Features

- Electrostatic dissipative
- Wide service temperature range up to 240 °C
- Processing: Transfer moulding

Properties	Test method	Unit	Value*
Specific Gravity	DIN EN ISO 12086	g/cm ³	2.11
Melting Point	DIN EN ISO 12086	°C	278
Melt Flow Index (372 °C/5 kg)	DIN EN ISO 1133	g/10 min	2
Tensile Strength at Break (23 °C)	ASTM D638	MPa	30
Elongation at Break (23 °C)	DIN EN ISO 527-1	%	290
Volume Resistivity	DIN ICE 93	Ohm x cm	< 10 000

*typical values, not suitable for specification purposes

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Typical Properties

3M Dyneon Fluoroplastic PFA 8502ESDZ is a black 3M Dyneon Fluoroplastic PFA compound that is electrostatically dissipative.

Typical Applications

3M Dyneon Fluoroplastic PFA 8502ESDZ, with a Melt-Flow-Index (372 °C/5 kg) of 2 g/10 min, is a material with a high viscosity and is used in low shear processes. 3M Dyneon Fluoroplastic PFA 8502ESDZ has specifically been developed for transfer moulding, when an electrostatically dissipative product is required.

Processing Recommendations

3M Dyneon Fluoroplastic PFA 8502ESDZ can be processed according to the known processing methods for thermoplastic polymers. All machine parts coming into contact with the melt or fumes of 3M Dyneon Fluoroplastic PFA 8502ESDZ should be made from highly corrosion resistant materials – usually high-nickel alloys such as Inconel® 625, Haynes® 242, Hastelloy® C, and Reiloy®. Off-gases and decomposition products during processing shall be managed via an appropriate exhaust fume management system, especially at the extruder die. For safe processing of Dyneon PFA please also check safety instructions below.

Typical processing temperatures for 3M Dyneon Fluoroplastic PFA 8502ESDZ lie between 340 °C and 370 °C. 3M Dyneon Fluoroplastic PFA 8502ESDZ has specifically been developed for transfer moulding.

Film extrusion and tube extrusion is also possible. For information on processing details please contact us.

Hastelloy®, Haynes® 242 and Reiloy® are registered Trademarks of Haynes International.

Inconel® is a registered Trademark of Special Metals Corporation.

Storage and Handling

3M™ Dyneon™ Fluoroplastic PFA 8502ESDZ can be stored for a relatively long period of time provided it is stored in a clean, dry place. It is suggested to dry this product before processing to remove any absorbed moisture.

Safety Instructions

Follow the normal precautions observed with all fluorothermoplastic materials.

Please consult the Material Safety Data Sheet and Product Label for information regarding the safe handling of the material. By following all precautions and safety measures, processing these products poses no known health risks. 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) If skin comes into contact with these products during handling, wash with soap and water afterwards. 5) Avoid contact with hot fluoropolymer.

Potential hazards, including release of toxic vapours, can arise if processing occurs under excessively high temperature conditions. Vapour extractor units should be installed above processing equipment. When cleaning processing equipment, do not burn off any of this product with a naked flame or in a furnace.

Delivery Form

3M™ Dyneon Fluoroplastic PFA 8502ESDZ is delivered in pellet form.

Packaging sizes are:

- 50 kg cardboard box, containing two PE-bags with 25 kg content each

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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.

Technical information, test data, and advice provided by Dyneon personnel are based on information and tests we believe are reliable and are intended for persons with knowledge and technical skills sufficient to analyse test types and conditions, and to handle and use raw polymers and related compounding ingredients. Testing in accordance with DIN, ISO and ASTM.

No license under any Dyneon or third party intellectual rights is granted or implied by virtue of this information.

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](#)" (download link) by PlasticsEurope, Box 3, B-1160 Brussels, Tel. +32 (2) 676 17 32.

You can also download it with your smartphone using the QR code below.



Customer Service

Europe

Phone: 00 800 396 366 27
Fax: 00 800 396 366 39

Italy

Phone: 800 7 910 18
Fax: 800 7 810 19

USA

Phone: +1 800 810 8499
Fax: +1 800 635 8061

Technical Service Fluoroplastics

Dyneon GmbH
3M Advanced Materials Division
Industrieparkstraße 1
84508 Burgkirchen
Germany
Phone: +49 8679 7 4709
Fax: +49 8679 7 5037

Technical Service Fluoroelastomers & Polymer Processing Additives

3M Belgium BVBA / SPRL
3M Advanced Materials Division
Canadastraat 11,
Haven 1005
2070 Zwijndrecht
Belgium
Phone: +32 3 250 7868
Fax: +32 3 250 7905

Technical Service PTFE Compounds

Dyneon B.V.
3M Advanced Materials Division
Tunnelweg 95
6468 EJ Kerkrade
The Netherlands
Phone: +31 45 567 9600
Fax: +31 45 567 9619

We will gladly supply further contact details for our full network of global sales offices. Alternatively, find them [here](#).



Web Site: www.dyneon.eu

Printed in Germany
© Dyneon 2013
Status: Jul. 2013

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