

3M™ Dyneon™ Fluoroplastic PFA 6515NZS

Typical Properties

3M™ Dyneon™ Fluoroplastic PFA 6515NZS is a black 3M Dyneon Fluoroplastic PFA compound that shows exceptional temperature resistance, excellent electrical properties and excellent chemical and weather resistance.

Typical Applications

3M Dyneon Fluoroplastic PFA 6515NZS, 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 moulding, when a black compound is required.

Processing Recommendations

3M Dyneon Fluoroplastic PFA 6515NZS 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 6515NZS 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 3M Dyneon Fluoroplastic PFA 6515NZS please also check safety instructions below.

Typical processing temperatures for Dyneon PFA lie between 360 °C and 390 °C. The medium melt viscosity makes 3M Dyneon Fluoroplastic PFA 6515NZS a standard material for injection moulding and wire & cable extrusion, when a black compound is required.

Injection moulding: Detailed processing information with typical processing parameters and processing equipment recommendations please find in Dyneon's "Injection Moulding Guide".

Wire & cable extrusion: For the wire & cable extrusion a 25 - 30 mm D extruder with a cylinder L/D ratio of 20 - 30:1 is required. The cylinder should have 3 - 4 heating zones that are independent from each other. High line speeds can be obtained with a high draw down ratio of up to 150:1. The draw down balance should be maintained between 0.95 – 1.05.

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 6515NZS can be stored for a relatively long period of time provided it is stored in a clean, dry place. 3M™ Dyneon™ Fluoroplastic PFA 6515NZS is hydrophobic and generally does not require drying before processing unless high humidity conditions create surface moisture absorption (Opened containers should be tightly resealed to prevent dust contamination from static charge accumulation and moisture ingress).

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 6515NZS 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 analyze test types and conditions, and to handle and use raw polymers and related compounding ingredients.

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.



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



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