

3M Advanced Materials Division

3M™ Dyneon™ Fluoroplastic Granules THV 500GZ

Features and Benefits

- Very good flexibility
- Very good transparency
- Processing profile allows co-processing with olefinic plastics and hydrocarbon elastomers
- Good chemical and permeation resistance
- Low flammability
- Bondable to itself and other substrates (for multi-layer constructions)

Note: Data in this document are not for specification purposes.

Typical Values (not for specification use)

Property	Test Method	THV 500GZ
Melting Point	ASTM D4591	165°C (329°F)
Melt Flow Index 265°C/5 kg	ASTM D1238	10 g /10 min
Specific Gravity	ASTM D792	2.01 g/cm ³
Tensile at Break	ASTM D638 (film)	26 MPa (3,771 psi)
Elongation at Break	ASTM D638	520%
Flexural Modulus	ASTM D790	210 MPa (30,000 psi)
Limiting Oxygen Index (LOI)	ASTM D2863	>75

Product Description

3M™ Dyneon™ Fluoroplastic Granules THV 500GZ is a flexible, transparent fluoroplastic composed of tetrafluoroethylene, hexafluoropropylene, and vinylidene fluoride in the form of pellets. It provides a balance of low temperature processing, low flammability, thermal stability, and melt processability. It can be used to prepare molded parts, extruded films, tubes, profiles, and wire coatings. It is useful for applications that require flexibility, low temperature processing and good chemical resistance.

Dyneon THV 500GZ processes at relatively low temperatures compared to other fluoroplastics. However, it should be remembered that THV is a fluoroplastic and should be treated accordingly.

Storage and Material Handling

3M™ Dyneon™ Fluoroplastic THV 500GZ should be stored in a clean, dry place in the original unopened container received from 3M. THV 500GZ is hydrophobic and generally does not require drying before processing unless high humidity conditions create surface moisture.

Safety/Toxicology

This is a fluoroplastic material, so normal precautions observed with fluoroplastics should be followed. Before processing this product, be sure to read and follow all precautions and directions for use contained in the product label and the Safety Data Sheet. General handling/processing precautions include: (1) Process only in well-ventilated areas; (2) Do not smoke in areas contaminated with powder/residue from this product; (3) Avoid eye contact; (4) After handling this product, wash any contacted skin with soap and water. Potential hazards, including evolution of toxic vapors, can exist if processing occurs under excessively high temperature conditions. Appropriate local exhaust ventilation such as 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.

Food Contact/ FDA Regulatory Status

This 3M product complies with 21 C.F.R. 177.2600 (rubber articles intended for repeated use) under paragraph (c)(4) and may be used in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting or holding food, subject to the provisions, including specifications, conditions of use, and limitations, if any, in this regulation.

3M makes no recommendation about the suitability of this 3M product in the user's intended application. It is the user's responsibility to determine whether its use of 3M products in a particular application is suitable and will comply with applicable laws and regulations. As appropriate, the user is also responsible for testing its finished product(s) made with 3M products to ensure compliance with any applicable specifications, conditions of use, and limitations (including extractives limitations) under applicable laws and regulations such as 21 C.F.R. 177.2600.

Product Form and Packaging

THV 500GZ pellets are supplied in 25 kg (55 lb) polyethylene bags.

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98-0504-1718-1 Rev B