

A 3M Company

# Dyneon™ Fluorothermoplastics THV 500G

### Product Features

- Excellent flexibility
- Processing profile allows co-processing with olefinic plastics and hydrocarbon elastomers
- Excellent chemicaland permeationresistance
- Low flammability
- Bondable to itself and other substrates (for multi-layer constructions)
- · High transparency

## Typical Properties (Data not for specification purposes)

Form	Pellets	
Melting Point	165°C (330°F)	ASTM D4591
Melt Flow Index	10 (265°C/5 kg)	ASTM D1238
Specific Gravity	1.98 g/cm <sup>3</sup>	ASTM D792
Tensile at Break	28 MPa (4,060 psi)	ASTM D638 (film)
Elongation at Break	500%	ASTM D638
Flexural Modulus	210 MPa (30,000 psi)	ASTM D790
Limiting Oxygen Index	>75	ASTM D2863
Packaging	25 kg (551b) bag 590 kg (1,300 lb) tote	

## Introduction

THV 500G 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 and extruded films, tubes, profiles and wire coatings. It is useful for applications that require flexibility, low temperature processing and good chemical resistance. The THV 200, 300, 400, 500 and 600 series process at relatively low temperatures compared to other fluoroplastics and may not require the same level of corrosion resistant equipment as that used with higher melting fluoroplastics. However, it should be remembered that THV is a fluoroplastic and should be treated accordingly.

Storage and Material Handling Dyneon THV 500G has an unlimited shelf life provided it is stored in a clean, dry place. Dyneon THV 500G is hydrophobic, and generally does not require drying before processing unless high humidity conditions create surface moisture adsorption.

# Safety/Toxicology

This is a fluoroplastic material so normal precautions observed with fluoroplastics should be followed. Before processing these products, consult the Material Safety Data Sheet and labels. Follow all 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.

Potential hazards, involving 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.



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### Management System-ISO 9001 and ISO 14001

All Dyneon design, development, production and service facilities have achieved a global ISO 9001 registration for their quality management system. In addition, our Gendorf, Germany and Decatur, AL locations have achieved ISO 14001 for their environmental management system.

## Regulatory

Dyneon THV 500G is in compliance with FDA specifications in 21 CFR 177.2600. It is the responsibility of the user to determine whether its specific formulation and intended use comply with applicable laws and are suitable for its intended applications.

#### Technical Information and Test Data

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.

#### Important Notice:

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 following is made in lieu of all express and implied warranties (including warranties of merchantability and fitness for a particular purpose): If a Dyneon product is proved to be defective, Dyneon's only obligation, and user's only remedy, will be, at Dyneon's option, to replace the quantity of product shown to be defective when user received it or to refund user's purchase price. In no event will Dyneon be liable for any direct, indirect, special, incidental, or consequential loss or damage, regardless of legal theory, such as breach of warranty or contract, negligence, or strict liability.

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