

3M Advanced Materials Division

3M™ Dyneon™ Fluoroplastic Agglomerate THV 221AZ

Features and Benefits

- Solvent soluble for coating applications
- High transparency
- Excellent flexibility
- Low flammability
- Melting point compatible with many substrates for co-extrusion, compounding, or coating
- Bondable to itself and other substrates
- Powder pre-blending is possible prior to melt compounding

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

Typical Values

Property	Test Method	THV 221AZ
Melting Point	ASTM D4591	115°C
Melt Flow Index 265°C/5 kg	ASTM D1238	20 g/10 min
Specific Gravity	ASTM D792	1.93 g/cm ³
Tensile at Break	ASTM D638 (film)	20 MPa (2,900 psi)
Elongation at Break	ASTM D638	700%
Flexural Modulus	ASTM D790	80 MPa (12,000 psi)

Product Description

3M™ Dyneon™ Fluoroplastic Agglomerate THV 221AZ is a flexible, transparent fluoroplastic composed of tetrafluoroethylene, hexafluoropropylene, and vinylidene fluoride in the form of agglomerate or coarse powder. It is soluble in select solvents and can be used to prepare solutions to coat a range of substrates to provide surfaces with good weatherability and anti-soiling properties. This agglomerate form can also be used for compounding. Dyneon THV 221AZ processes 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

3M™ Dyneon™ Fluoroplastic Agglomerate THV 221AZ should be stored in a clean, dry place in the original unopened container received from 3M. THV 221AZ 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.

Packaging

THV 221AZ is available in 25 kg (55 lb) bags and 50 kg (110 lb) boxes.

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3M Advanced Materials Division

3M Center
St. Paul, MN 55144 USA
Phone 1-800-810-8499
Web www.3m.com/advancedmaterials

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