



*product information*

## Fluon® G350 & G355 Granular PTFE Molding Powders

### PRODUCT DESCRIPTION

Fluon® G350 and G355 are fine agglomerated, free-flowing powders. These grades have high bulk density with excellent flow characteristics. They are specifically designed for automatic molding, isostatic molding and general molding techniques. Articles molded from Fluon G350 and G355 exhibit good mechanical properties and surface finish.

### TYPICAL APPLICATIONS

- Automatic molding of stock shapes
- Isostatic molding of various shapes
- Compression molding for sheets

### TYPICAL PROPERTIES

Property	Units	FLUON G350	FLUON G355
Median Particle Size	Microns	380	370
Powder Bulk Density	g/l	890	900
Shrinkage	%	3.1	2.4
Tensile Strength	MPa	34	35
Elongation	%	400	410
Specific Gravity	-	2.16	2.16

NOTE: The data listed here represents typical values for the stated grades of Fluon PTFE. This information should be used as a guide only and not to establish specification limits or design criteria. AGC Chemicals Americas assumes no obligation or liability for any advice furnished by us or for results obtained with respect to this product. All such advice is provided free of charge and the buyer assumes sole responsibility for results obtained in reliance thereon.

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AGC Chemicals Americas, Inc.  
 Business & Technical Center  
 55 E. Uwchlan Ave, Suite 201  
 Exton, PA 19341  
 Phone: 610.423.4300  
 Fax: 610.423.4301  
<http://www.agcchem.com>



**PROCESSING**

Fluon G350 and G355 can be molded following generally established procedures. For full details consult the Fluon Technical Service Note F1, "The Molding of PTFE Granular Powders" and F14, "Isostatic Compaction of PTFE Powders".

<b>Molding</b>	Compression ratios: 2.7 Preforming: 4500-5000 psi with slow, steady compression
<b>Sintering</b>	The article must be heated above the gel point of the resin (648°F [342°C]) to achieve complete sintering. Maximum sintering oven temperatures are usually 700°F (371°C) and higher, depending on the wall thickness of the article.

**SPECIFICATION CONFORMANCE**

Fluon G350 and G355 resins conform to the following industry specifications:

- ASTM D-1457 Type VI, Grade 2
- ASTM-4894 Type IV, Grade 2
- Federal Food and Drug Administration 21 CFR 177.1550

**FDA COMPLIANCE**

Fluon Polytetrafluoroethylene (PTFE), when sintered to high temperatures common in the industry, is compliant with the compositional and extraction requirements for United States Federal Food and Drug Administration Regulation (FDA) 21 CFR 177.1550.

**USP PLASTIC CLASS VI**

Fluon Polytetrafluoroethylene (PTFE) has been submitted for testing according to USP class VI protocol. The material complies with the requirement under USP guidelines for implantation, intra-cutaneous, and toxicity study. Even though our material meets the requirements, it is always good practice to test material as used in its final platform. Testing of the finished part is the responsibility of the manufacture or seller if certification is required. If additional information is required, please contact the Fluon PTFE Technical Service Department for assistance.

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## PACKAGING

Fluon G350 and G355 are supplied in a fiber drum container with 25 kgs/keg.

## STORAGE AND HANDLING PROCEDURES

Fluon G350 and G355 should be stored in a cool, dry environments, preferably between 59 and 65°F (15 and 18°C). Excessively warm powder will have impaired flow characteristics. Atmospheric moisture may condense on excessively cold powder if a keg is opened in a warm room. Such condensation may cause cracked moldings. The temperature of PTFE powder should not pass through PTFE's transition point (66 – 68°F [19 – 20°C]) during the molding process. If this occurs, cracked moldings may result.

## HANDLING PRECAUTIONS

Within its working temperature range, PTFE is a completely inert material, but when heated above 750°F (400°C), it gives rise to gaseous decomposition products or fumes that can produce unpleasant effects if inhaled. Fumes can be produced during the sintering process. The inhalation of these fumes is easily prevented by applying local exhaust ventilation as near to the source as possible.

## HANDLING PRECAUTIONS

Smoking should be prohibited in workshops where PTFE is handled because tobacco contaminated with PTFE will, during burning, give rise to polymer fumes. It is therefore important to avoid contamination to clothing, especially the pockets, with PTFE and to maintain a reasonable standard of personal cleanliness by washing hands and removing any PTFE particles lodged under the fingernails. More information is included in the Technical Bulletin "Guide to the Safe Handling of Fluoropolymer Resins" by The Society of the Plastic Industry, Inc. (SPI)

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**AGC**

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## SAFE HANDLING INFORMATION

A summary of the hazards, as defined by OSHA Hazard Communication Standard, 29 CFT 1910.1200 for this product are:

Physical hazards: None

Health hazards: None

FOR ADDITIONAL INFORMATION AND HANDLING INSTRUCTIONS, READ AGC CHEMICALS AMERICAS, INC. MATERIAL SAFETY DATA SHEET.

### For more information and samples contact

**AGC Chemicals Americas, Inc.**  
55 E. Uwchlan Avenue, Suite 201  
Exton, PA 19341

**Phone:** (800) 424-7833

**Fax:** (610) 423-4301

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