

A 3M Company

Dyneon™

Fluorothermoplastics

FEP X 6301, FEP X 6303 and FEP X 6307

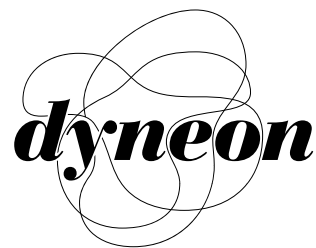
Dyneon FEP X 6301, X 6303 and X 6307 were developed for extrusion, injection molding and transfer molding for the wire and cable and chemical process industries. Their distinguishing features include:

- Excellent electrical properties
- High thermal stability
- Long term temperature rating up to 200°C
- Outstanding chemical resistance
- Wide processing window

General properties of these FEP grades are shown below:

Typical Properties (Data not for specification purposes)

Property	Test Method	Unit	Value		
			FEP X 6301	FEP X 6303	FEP X 6307
Specific Gravity	ASTM D792	g/cm ³	2.14	2.15	2.15
Melt Flow Index (372°C/5 kg)	ASTM D1238	g/10 min	1	3	7
Melting Point	ASTM D4591	°C	260	260	260
		°F	500	500	500
Brittleness Temp.	ASTM D746	°C	< -70	< -70	< -70
		°F	< -94	< -94	< -94
Tensile Strength at Break (23°C)	ASTM D638	MPa	30	28	25
		psi	4,350	4,060	3,625
Elongation at Break (23° C)	ASTM D638	%	350	350	350
Flexural Modulus	ASTM D790	MPa	530	580	580
		psi	77,000	84,000	84,000
Izod Impact (notched, -40°C)	ASTM D256	ft.lb./in J/m	No Break	No Break	No Break
Dielectric Strength (4.5 mil film)	ASTM D149	kV/mm	—	—	—
Dielectric Constant	ASTM D150	1 kHz	—	≤ 2.15	≤ 2.15
		1 MHz	—	≤ 2.15	≤ 2.15
Dissipation factor	ASTM D150	1 kHz	< 0.0003	< 0.0003	< 0.0003
		1 MHz	≤ 0.0007	≤ 0.0007	≤ 0.0009
Vertical Burn (UL94)	UL Bulletin 94				
Limiting Oxygen Index	ASTM D2863	%	> 95	> 95	> 95



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Product Form and Packaging

These products are supplied in pellet form in 25 kg (55.1 lb) PE bags.

Storage and Material Handling

Dyneon FEP X 6301, FEP X 6303 and FEP X 6307 have an unlimited shelf life provided it is stored in a clean, dry place. Dyneon FEP X 6301, FEP X 6303 and FEP X 6307 are hydrophobic, and generally do not require drying before processing unless high humidity conditions create surface moisture adsorption.

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 location has achieved ISO 14001 for its environmental management system.

Regulatory

Dyneon FEP X 6301, FEP X 6303 and FEP X 6307 are in compliance with FDA regulation 21 CFR 177.1550. 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.

Safety/Toxicology

These are fluoroplastic materials, so normal precautions observed with fluoroplastics should be followed. Before processing these products, consult the Material Safety Data Sheet and follow all label 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, including 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.

For further assistance please contact your Dyneon sales representative.

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.

Product Identification

The "X" product designation indicates that this is a newly commercialized product and Dyneon reserves the right to make additional process modifications without notice to purchasers as long as the product meets Dyneon published specifications. Once the commercialized production process for this product is standardized, the "X" designation will be dropped from the product code.

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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