MATERIAL DATASHEET

FLUOROCARBON

Material Reference:

FLUORINOID® FL305

PFA (Perfluoro alkoxy copolymer)

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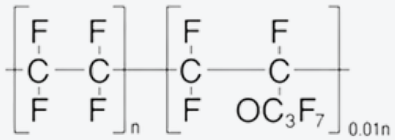
> Description >

PFA is a co-polymer product of PTFE with typical structure as shown below. The co-monomer perfluoroalkyl vinyl ether is expected to interfere in the crystallisability and molecular weight to achieve good mechanical properties and melt processability without sacrificing thermal performance and chemical resistance.



PFA has an outstanding chemical resistance even at elevated temperatures. They are resistant to strong mineral acids, inorganic bases, and inorganic oxidizing agents and to most of the organic compounds and their mixtures common in the chemical industry. However, they react with fluorine and molten alkali.

FL 305 is a melt processible fluoropolymer with chemical resistance and thermal properties which are as good as those of PTFE. It has a maximum use temperature of 260°C. The material is also good for use as Distance Strips and Blister Strips in Ammonia production due to its chemical and electrical resistance along with FL300 ETFE. Owing to surface finish, purity, inertness PFA find its applications widely in semi-conductor application

>Typical Physical Properties

Properties	Value
Specific Gravity*	2.12-2.17
Tensile Strength*	20 MPa
Elongation*	250%
Shore D Hardness*	55-65

>Generic Properties

Melting Points	305 °C
Tensile Modulus	540 MPa
Dielectric Constant	2.03
Volume Resistivity	10^{18} Ω * cm

*Tested in 3.1 Certification Request

These figures are typical values for the material and do not represent a product specification. Properties will vary depending on the source of raw material, method of processing, physical form of the product, direction of measurement etc.

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