

Issue 3

DATA SHEET

MATERIAL REFERENCE - FLUORINOID® FL 115

DESCRIPTION CARBON FILLED PTFE

FORMULATION 75% PTFE, 25% CARBON (BY WEIGHT)

FL 115 is used in sealing applications. Carbon filler gives good compression and wear resistance, good thermal conductivity and low permeability.

TYPICAL PHYSICAL PROPERTIES

SPECIFIC GRAVITY	(BS EN ISO 13000-2)	2.05 - 2.12
TENSILE STRENGTH	(BS EN ISO 13000-2)	11MPa minimum
ELONGATION	(BS EN ISO 13000-2)	70% minimum
SHORE D HARDNESS	(BS EN ISO 13000-2)	60 - 75

COMPRESSIVE STRENGTH (ASTM D695) 16.5 MPa

at 2% offset, axial

DEFORMATION UNDER LOAD(ASTM D621)

2% 2000 psi total 24 HOURS 2000 psi permanent 1%

WATER ABSORPTION (ASTM D570) < 0.2%

THERMAL CONDUCTIVITY 0.59 W/(m·K)

15 x 10⁻⁵ /°C COEFFICIENT OF THERMAL EXPANSION (||)

 $10^4 \,\Omega \cdot \mathrm{cm}$ **VOLUME RESISTIVITY**

COEFFICIENT OF FRICTION ~ 0.085

WEAR RATE $(m^3/Nm \times 10^{-16})$ 4.8

260°C MAXIMUM WORKING TEMPERATURE

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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.