

Doriflon Specification Sheet

Material Name	PCTFE			
Description	Polychlorotrifluoroethylene			
Remarks and Applications	Excellent chemical resistance Near Zero Moisture Absorbtion Good Mechanical Properties			
Typical Properties				
Property	Conditions	ISO	Units	Value
General Properties				
Specific Gravity			g/cm ³	2.10-2.16
Water Absorption @ 23°C				
- in water 24 hours			%	
- saturation in water			%	<0.01
Colour				White
Thermal Properties				
Melting Point			°C	185-210
Minimum Working Temperature			°C	-240
Continuous Working Temperature			°C	150-200
Thermal Conductivity			W/K.m	0.19
Linear Thermal Expansion Coefficient			K ⁻¹ x10 ⁻⁵	4-8
Flammability			UL (thickness)	Non Combustible
Mechanical Properties				
Tensile Strength @ 23°C, dry			N/mm ²	31-42
Tensile Modulus @ 23°C, dry			N/mm ²	1000-2000
Flexural Modulus			N/mm ²	
Shear Strength			N/mm ²	
Elongation @ 23°C, dry			%	
Flexural Strength @ 23°C, dry			N/mm ²	
Hardness Shore D @ 23°C, dry				70-90
Hardness Rockwell @ 23°C, dry				R103-118
Deformation under load				
- 14 N/mm ² for 24 hours at 50°C			%	
- 8 N/mm ² for 24 hours at 150°C			%	
- 14 N/mm ² for 24 hours at 150°C			%	
Impact Strength			Izod J/m	
Electrical Properties				
Volume Resistivity			Ohm.cm	>10 ¹⁵
Dielectric Strength			kV/mm	50-70
Relative Permittivity 50Hz-10kHz				
Resistance Properties				
Outside Applications - UV Resistance				
Acids, Weak pH > 3				
Acids, Strong pH < 3				
Alkalis, Strong pH > 11				
Chlorinated Hydrocarbons				
Hot Water				