

Doriflon Specification Sheet

Material Name	Torlon 4301			
Description	Polyamide-imide (PAI) + Graphite + PTFE			
Remarks and Applications	Higher Wear Resistance and Lower Coefficient of Friction			
Typical Properties				
Property	Conditions	ISO	Units	Value
General Properties				
Specific Gravity			g/cm ³	1.45
Water Absorption @ 23°C				
- in water 24 hours			%	.28
- saturation in water			%	3
Colour				Green/Black
Thermal Properties				
Melting Point			°C	
Minimum Working Temperature			°C	
Continuous Working Temperature			°C	230-260
Thermal Conductivity			W/K.m	.54
Linear Thermal Expansion Coefficient			K ⁻¹ x10 ⁻⁵	2.52
Flammability			UL (thickness)	V-0 (1.17mm)
Mechanical Properties				
Tensile Strength @ 23°C, dry			N/mm ²	164
Tensile Modulus @ 23°C, dry			N/mm ²	6600
Flexural Modulus			N/mm ²	6900
Shear Strength			N/mm ²	112
Elongation @ 23°C, dry			%	7
Flexural Strength @ 23°C, dry			N/mm ²	219
Hardness Shore D @ 23°C, dry				
Hardness Rockwell @ 23°C, dry				M106
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	63
Electrical Properties				
Volume Resistivity			Ohm.cm	8x10 ¹³
Dielectric Strength			kV/mm	
Relative Permittivity 50Hz-10kHz				5.7
Resistance Properties				
Outside Applications - UV Resistance				C
Acids, Weak pH > 3				A
Acids, Strong pH < 3				A
Alkalis, Strong pH > 11				C
Chlorinated Hydrocarbons				
Hot Water				E