Doriflon Specification Sheet

Material Name **HDPE**

Description: High Density Polyethylene

Remarks and Applications: Good wear and abrasion resistance
High impact strength
Excellent chemical resistance

Typical Properties

Property	Conditions	ISO	Units	Value
Physical				
Density		1183	g/cm³	0.96
Water Absorption	saturation @ 23°C	-	%	0.01
Colour		-	-	White/Black
Mechanical				
Tensile Stress at Yield		527	MPa	28
Tensile Strain at Yield		527	%	10
Nominal Tensile Strain at Break		527	%	>50
Tensile Modulus of Elasticity		527	Mpa	1350
Compressive stress at 1/2/5% nominal strain		604	Mpa	9/15/23
Ball indentation hardness		2039-1	N/mm²	45
Notch Impact Strength Charpy	23°C		kJ/m²	105P
Impact Falling Weight	3mm Sheet		J	
Shore Hardness		868	-	66/64
Thermal				
Melting Temperature	DSC, 10°C/Min	11357	°C	130-135
Long Term Service Temperature			°C	80
Short Term Service Temperature			°C	120
Minimum Service Temperature			°C	-100
Heat Deflection Temperature	method A: 1.8 Mpa	75	°C	44
Vicat Softening Temperature	VST/B50	306	°C	80
Coefficient of Linear Thermal				
Expansion	between 23 & 100°C	-	10^-6m/(m.K)	150
Thermal Conductivity	@ 23°C	-	W/(K.m)	0.4
Flammability	Oxygen Index	4589	%	<20
	UL94 (1.6mm)	-	-	HB
Electrical				
Electric Strength		(60243)	kV/mm	45.0
Relative Permittivity	100 Hz	(60250)	-	2.4
	1 MHz	(60250)	-	2.4
Dissipation Factor	100 Hz	(60250)	-	0.0002
	1 MHz	(60250)	-	0.0002
Comparative Tracking Index (CTI)		(60112)	-	600
Surface Resistance		(60093)	Ohm	>10^13
Volume Resistance		(60093)	Ohm-cm	>10^14