



MATERIAL DATASHEET

(Revision 20-09-2023)

GENERAL PROPERTIES	
Compound name:	NDS-100
Compound description:	PTFE Virgin
Color:	White
Operating temperature range:	-200°C to +260°C
Approvals/certifications:	NSF/ANSI 61 certified, FDA compliant

MATERIAL PROPERTIES			
Property (conditions)	Specified	Unit	Standard
Hardness (at 23°C)	55	Shore D	ISO 868
Specific gravity (at 23°C)	2.16	g/cm ³	ISO 1183
Ball indentation hardness (at 23°C H132/60)	28	MPa	ISO 2039-1
Water absorption (24 hours)	<0.01	%	ASTM D570
Mechanical			
Tensile strength (test speed 50mm/min)	22	MPa	ISO 527
Elongation at break (test speed 50mm/min)	250	%	ISO 527
Tensile modulus (test speed 50mm/min)	550	MPa	ISO 527
Compressive strength (1% deformation)	4.5	N/mm ²	ASTM D695
Deformation under load (at 23°C , 24h@13,7 N/mm ²)	15	%	ASTM D621
Permanent deformation (as above, after 24h of rest)	8	%	ASTM D621
Izod notched impact strength (23°C)	155	J/m	ASTM D256
Thermal			
Coefficient of thermal linear expansion (25°C/95°C)	12	10 ⁻⁵ /°C	ASTM D696
Service temperature	-200°C to +260	°C	-
Melting temperature (10°C/min)	327	°C	ISO 11357
Flame rating (3-6mm)	V-0	Class	UL 94
Heat deflection temperature (1.8 MPa)	50	°C	ISO 75



Electrical			
Dielectric strength (0.5mm thickness)	60	Kv/mm	IEC 60243-1
Dielectric constant (60 to 2 x 10 ⁹ Hz)	2.1	-	ASTM D150
Dissipator factor (60 to 2 x 10 ⁹ Hz)	0.0001	-	ASTM D150
Volume resistivity (23°C)	10 ¹⁸	Ω*cm	IEC 60093
Surface resistivity (23°C)	10 ¹⁷	Ω	IEC 60093
Tribological			
Coefficient of static friction	0.04-0.08	-	ASTM D3702
Coefficient of dynamic friction	0.05-0.10	-	ASTM D3702
Miscellaneous			
Weathering resistance	Excellent	-	Weather-O-Meter
Chemical resistance	Excellent	-	ASTM D543

Disclaimer

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