



# MATERIAL DATASHEET

(Revision 07-02-2020)

GENERAL PROPERTIES	
Compound name:	NDS-123
Compound description:	PTFE + 15% glass + 3% MoS2
Color:	Dark metallic brown
Operating temperature range:	-200°C to +260°C
Approvals/certifications:	

MATERIAL PROPERTIES			
Property (conditions)	Specified	Unit	Standard
Hardness (at 23°C)	60	Shore D	ISO 868
Specific gravity (at 23°C)	2.27	g/cm <sup>3</sup>	ISO 1183
Ball indentation hardness (at 23°C H132/60)	30	MPa	ISO 2039-1
Water absorption (24 hours)	0.015	%	ASTM D570
<b>Mechanical</b>			
Tensile strength (test speed 50mm/min)	17	MPa	ISO 527
Elongation at break (test speed 50mm/min)	260	%	ISO 527
Tensile modulus (test speed 50mm/min)		MPa	ISO 527
Compressive strength (1% deformation)	8	N/mm <sup>2</sup>	ASTM D695
Deformation under load (at 23°C , 24h@13,7 N/mm <sup>2</sup> )	9	%	ASTM D621
Permanent deformation (as above, after 24h of rest)	4	%	ASTM D621
Izod notched impact strength (23°C)		J/m	ASTM D256
<b>Thermal</b>			
Coefficient of thermal linear expansion (25°C/95°C)	10	10 <sup>-5</sup> /°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)		°C	ISO 75



<b>Electrical</b>			
Dielectric strength (0.5mm thickness)		Kv/mm	IEC 60243-1
Dielectric constant (60 to 2 x 10 <sup>9</sup> Hz)		-	ASTM D150
Dissipator factor (60 to 2 x 10 <sup>9</sup> Hz)		-	ASTM D150
Volume resistivity (23°C)	10	Ω*cm	IEC 60093
Surface resistivity (23°C)		Ω	IEC 60093
<b>Tribological</b>			
Coefficient of static friction	0.15	-	ASTM D3702
Coefficient of dynamic friction	0.12	-	ASTM D3702
<b>Miscellaneous</b>			
Weathering resistance	Excellent	-	Weather-O-Meter
Chemical resistance	Good	-	ASTM D543

#### Disclaimer

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