



# MATERIAL DATASHEET

(Revision 30-11-2021)

GENERAL PROPERTIES	
Compound name:	NDS-430
Compound description:	PTFE + 23% CARBON + 2% GRAPHITE
Color:	Black
Operating temperature range:	-100°C to +250°C
Approvals/certifications:	Approval: FDA

MECHANICAL PROPERTIES			
Property	Specified	Unit	Standard
Specific gravity	2.070-2.120	g/cm <sup>3</sup>	ASTM D 792
Water absorption	0.03	%	ASTM D 570
Flammability	V-0	-	UL 94
Tensile strength	≥13	MPa	ASTM D 4745
Elongation	≥60	%	ASTM D 4745
Hardness	≥62	Shore D	ASTM D 2240
Ball hardness	≥25	MPa	ASTM D 785
Compression strength at 1% deformation (parallel to MD)	≥10	MPa	ASTM D 695
Compression strength at 1% deformation (perpendicular to MD)	≥9	MPa	ASTM D 695
Deformation under load (140 Kg/cm <sup>2</sup> for 24 hrs. At 23°C)	5-7	%	ASTM D 621
Permanent deformation (after 24 hrs. Relaxation at 23°C)	2-4	%	ASTM D 621
Coefficient of static friction	0.13-0.15	-	ASTM D 1894
Coefficient of dynamic friction	0.11-0.13	-	ASTM D 1894
Wear coefficient	34	Cm <sup>3</sup> min 10 <sup>-8</sup> Kg*m*h	ASTM C 177



## MECHANICAL PROPERTIES

Property	Specified	Unit	Standard
Thermal conductivity	0.59	W/m*K	ASTM D 177
Coefficient of linear thermal expansion from 25 to 100 °C	7-12	10 <sup>-5</sup> /°C	ASTM D 696
Volume resistivity	10 <sup>4</sup>	Ohm*cm	ASTM D 257
Surface resistivity	10 <sup>3</sup>	Ohm	ASTM D 257

### Disclaimer

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