

# Data Sheet: N50

## MATERIAL: NITRILE 50 SHORE

COLOUR: BLACK

GENERAL SERVICE TEMPERATURE RANGE: -35°C to 110°C

SPECIFICATION: ASTM D2000 M2BG507B14EF11EF21EO14EO34

PHYSICAL PROPERTIES	TEST METHOD	REQUIREMENT	TEST RESULT
HARDNESS SHORE A	ASTM D2240	50+/-5	48
TENSILE STRENGTH, psi	ASTM D412	TS ≥ 1015	1618
ELONGATION %	ASTM D412	E ≥ 350	711
<b>B14 COMPRESSION SET</b>			
22 hrs @ 100°C %	ASTM D395	CS ≤ 25	18.7
<b>EF 11 FLUID RESISTANCE, A.OIL, 70 hrs @ 23°C</b>			
HARDNESS CHANGE, POINTS	ASTM D471	+/-10	+1
TENSILE STRENGTH CHANGE %	ASTM D471	-25	-12.55
ELONGATION CHANGE %	ASTM D471	-25	-8.86
VOLUME CHANGE %	ASTM D471	-5/+10	+0.54
<b>EF21 FLUID RESISTANCE, B.OIL, 70 hrs @ 23°C</b>			
HARDNESS CHANGE, POINTS	ASTM D471	0/-30	-9
TENSILE STRENGTH CHANGE %	ASTM D471	-60	-52.04
ELONGATION CHANGE %	ASTM D471	-60	-41.49
VOLUME CHANGE %	ASTM D471	0/-40	+12.90
<b>EO14 FLUID RESISTANCE, No.1.OIL, 70 hrs @ 100°C</b>			
HARDNESS CHANGE, POINTS	ASTM D471	-5/+10	+13
TENSILE STRENGTH CHANGE %	ASTM D471	-25	+5.19
ELONGATION CHANGE %	ASTM D471	-45	-14.91
VOLUME CHANGE %	ASTM D471	-10/+5	-15.90
<b>EO34 FLUID RESISTANCE, No.3.OIL, 70 hrs @ 100°C</b>			
HARDNESS CHANGE, POINTS	ASTM D471	-10/+5	+7
TENSILE STRENGTH CHANGE %	ASTM D471	-45	+14.28
ELONGATION CHANGE %	ASTM D471	-45	-26.16
VOLUME CHANGE %	ASTM D471	0/+25	-5.57
<b>GLASS TRANSITION TEMPERATURE (TG), °C</b>			-35.58

*The above test results are based on test slabs / buttons. The results from the actual parts may be different.*

Issue Date: 08.05.2013