

**NBR (NITRILE) – BLACK  
70 SHORE HARDNESS  
TECHNICAL DATASHEET**

**CURE SYSTEM: SULPHUR**

**Temperature Range: -30° C to +100° C**

**Specification Met:**

ASTM D2000 M2BG714 A14 B14 EA14 EF11 EF21 EO14 EO34 F17

**PHYSICAL PROPERTIES**

<b>PARAMETERS</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Hardness, Shore A (ASTM D 2240)	70 ± 5	70
Tensile Strength, Mpa (ASTM D412)	Min 14.0	14.4
Elongation At Break, % (ASTM D 412)	Min 250	325
Specific Gravity, g/cm <sup>3</sup> (ASTM D 297)	--	1.27

<b>RESISTANCE TO HEAT -- ASTM D 573 (70 Hrs At 100°C) – A14</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Hardness Change, Points	± 15	+3
Tensile Strength Change %	± 30	+10
Elongation Change %	Max -50	-28

<b>COMPRESSION SET -- ASTM D395 – B14</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Compression Set % 22hrs @ 100°C	Max 25	12%

<b>RESISTANCE TO WATER -- ASTM D 471 (70 Hrs At 100°C) – EA14</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Hardness Change, Points	± 10	-5
Volume Change %	± 15	+10

<b>RESISTANCE TO FUEL A -- ASTM D 471 (70 Hrs At 23°C) – EF11</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Hardness Change, Points	± 10	-4
Tensile Strength Change %	Max -25	-15
Elongation Change %	Max -25	-20
Volume Change %	-5 To +10	+5

<b>RESISTANCE TO FUEL B -- ASTM D 471 (70 Hrs At 23°C) – EF21</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Hardness Change, Points	-30 To 0	-15
Tensile Strength Change %	Max -60	-39
Elongation Change %	Max -60	-33
Volume Change %	0 To +40	+23

<b>RESISTANCE TO OIL 901 -- ASTM D 471 (70 Hrs At 100°C) – EO14</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Hardness Change, Points	-5 To +10	+7
Tensile Strength Change %	Max -25	+7
Elongation Change %	Max -45	+25
Volume Change %	-10 To +5	-8

<b>RESISTANCE TO OIL 903 -- ASTM D 471 (70 Hrs At 100°C) – EO34</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Hardness Change, Points	-10 To +5	-7
Tensile Strength Change %	Max -45	+7
Elongation Change %	Max -45	+25
Volume Change %	-10 To +25	+6

<b>LOW TEMP RESISTANCE -- ASTM D 2137 – F17</b>	<b>REQUIREMENT ASTM D2000</b>	<b>ISG TEST VALUE</b>
Non-Brittle After 3Min @ -40°C	--	PASS

Ref Date: 23rd April 2023