



**MATERIAL DATA SHEET**

Material ref: N2308

Description: 70 duro HNBR/Black

	Typical Properties			
	Test Method	Unit of Measure	Nominal Value	Obtained Value
<b>Hardness</b>	ASTM D2240	Shore A	71+/-5	71
<b>Tensile Strength</b>	ASTM D412	Mpa	>17	20
<b>Ult. Elongation</b>	ASTM D412	%	>180	220
<b>Specific Gravity</b>	ASTM D1817	G/cm3	1.22+/-0.02	1.22
<b>Tear Resistance</b>	ASTM D624	N/mm	>40	50
<b>Compression Set</b> 22hrs @ 175C	ASTM 395B	%	<25	20
<b>Compression Set</b> 70hrs @ 175C	ASTM 395B	%	<45	40
<b>Air Aging</b> <b>70hrs @ 175C</b>	ASTM D573			
Hardness Change		Shore A		+8
Tensile Change		%		-14
Elong. Change		%		-43
Vol. Change		%	0 to -5	Nil
<b>Oil Aging</b> <b>ASTM 1 Oil</b>	ASTM D471 70 hrs @ 150C			
Hardness Change		Shore A		nil
Tensile Change		%		-9
Elong. Change		%		-23
Vol. Change		%		-2.5
<b>Oil Aging</b> <b>ASTM 3 Oil</b>	ASTM D471 70 hrs @ 150C			
Hardness Change		Shore A		-12
Tensile Change		%		-10
Elong. Change		%		-10
Vol. Change		%		+20



	<u>Test Method</u>	<u>Unit of Measure</u>	<u>Nominal Value</u>	<u>Obtained Value</u>
<b>Immersion Test</b>	ASTM D471			
<b>Fuel A</b>	70 hrs @ 23C			
Hardness Change		Shore A		-1
Tensile Change		%		-5
Elong. Change		%		-7
Vol. Change		%		+1
<b>Immersion Test</b>	ASTM D471			
<b>Fuel B</b>	70 hrs @ 23C			
Hardness Change		Shore A		-15
Tensile Change		%		-47
Elong. Change		%		-48
Vol. Change		%		+38
<b>Immersion Testing</b>	ASTM D471			
<b>H2O</b>	70 hrs @ 100C			
Hardness Change		Shore A		-3
Tensile Change		%		-10
Elong. Change		%		-10
Vol. Change		%		+3
<b>Immersion Testing</b>	ASTM D471			
<b><u>ATF/Dexron 2</u></b>	168 hrs @ 150C			

Hardness Change		Shore A		-3
Tensile Change		%		+6
Elong. Change		%		-30
Vol. Change		%		+5

<b>Cold Resistance</b>	ASTM D2137A	Degrees C	< -40	-42
TR10	ASTM D1329	Degrees C	< -20	-22