

<b>ORING.SU</b>			
<b>Material Data Sheet</b>	Material Code	<b>N70W</b>	Issue 2 Revision 3
	Designation	<b>NBR</b>	January 2003

**MATERIAL TYPE:** White Nitrile Butadiene Rubber (NBR), 66-75 °IRHD. Copolymer of acrylonitrile and butadiene. Formulated using only those ingredients determined by the United States Federal Food and Drug Administration (FDA) to be in accordance with Code of Federal Regulations Title 21 (CFR21), Section 177.2600 and Section 180.22. Water, Hexane and acrylonitrile extraction tested.

**APPLICATION:** For repeated use in equipment associated with the production of aqueous and fatty foodstuffs intended for human consumption.

**TEMPERATURE RANGE:** Maximum temperature: **+120°C (+248°F)**.  
Minimum temperature: **-40°C (-40°F)**.

**STORAGE RECOMMENDATION:** Initial storage = 7 years, extended storage = 3 years.

<b>TYPICAL PHYSICAL PROPERTIES:</b>				
<b>Property</b>	<b>Unit</b>	<b>Test Method</b>		<b>Value</b>
Hardness (points)	°IRHD	ASTM D 1415	(=ISO 48)	70
Tensile strength	MPa	ASTM D 412	(=ISO 37)	14.0
Elongation at break	%	ASTM D 412	(=ISO 37)	250
<b>Compression Set, Method B;</b>				
24 hours at 100°C (212°F)	%	ASTM D 395	(=ISO 815)	50
<b>Heat Resistance;</b>				
70 hours at 100°C (212°F)		ASTM D573	(=ISO 188)	
Hardness change (points)	°IRHD	ASTM D 1415	(=ISO 48)	±15
Tensile strength change	%	ASTM D 412	(=ISO 37)	-20
Elongation at break change	%	ASTM D 412	(=ISO 37)	-40
<b>FDA Regulation Extraction test</b>		Authorised limits		Materials extracted
		Mg/sq.inch		N70W (batch P2787)
Distilled water	First 7 hours	20		1.6, 2.6
	2 succeeding hours	1		<0.1, <0.1
n-Hexane	First 7 hours	175		2.7, 2.8
	2 succeeding hours	4		3.1, 3.5
Acrylonitrile monomer		3		2.1
<b>Low Temperature Resistance;</b>				
Non-brittle after 3 minutes at	°C			-40

**HEALTH & SAFETY DATA:** No known hazard exists if used in accordance with the temperature range as quoted.

**FIRE HAZARD:** Ignition temperature >300°C (572°F).

Thermal decomposition will generate carbon dioxide, carbon monoxide, hydrocarbons, nitrogen compounds and hydrogen cyanide. In the event of a fire, fire fighters must wear self-contained breathing apparatus and a protective suit. Extinguish with water, foam, carbon dioxide or dry chemical.

**DISPOSAL:** Must conform to national, state and/or local regulations. Landfill is recommended. Burning is not recommended, unless conducted by an approved/licensed incineration agency.

**SPECIAL NOTE:** This information is to the best of our knowledge accurate and reliable. However, PPE make no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use, especially in applications where their failure may result in injury and/or damage. It should also be noted that all elastomeric parts have a finite life, therefore a regular program of inspection and replacement is strongly recommended.