

**VICTOR REINZ® VR 70****Technical Data Sheet US/337**

Edition: 06/2004

<b>Material</b>	<b>VR 70</b> is an asbestos-free gasket material. It is composed of aramide fibres and other asbestos substitutes which are resistant to high temperatures. These substitutes are processed with high-grade elastomers under elevated pressure and temperature.																																				
<b>Properties</b>	<b>VR 70</b> is an economical gasket material. It exhibits good sealability in contact with gases and fluids coupled with good conformability. The thermal resistance of the material may be regarded as being very good.																																				
<b>Application</b>	For sealing joints which are subject to moderate operating pressures, e.g. in transformers, compressors, pipelines, apparatus and internal combustion engines. For sealing off transmission, hydraulic, refrigerating and motor oils; for sealing off fuels, mixtures of water and antifreeze and corrosion inhibitors; for sealing off freons, alkaline solutions and solvents.																																				
<b>Surfaces</b>	The standard version of <b>VR 70</b> has a non-stick top and bottom layer with a high coefficient of friction. This facilitates dismantling. Additional surface treatment is unnecessary in most cases.																																				
<b>Approvals</b>	<b>DIN-DVGW</b> acc. to DIN 3535, part 6 FA																																				
<b>Technical Data</b> Nominal thickness 0.08" (2.00 mm) unless otherwise specified	<table border="1"> <tr> <td><b>Density</b></td> <td>119 - 131 lb/ft<sup>3</sup> (1.9 - 2.1 g/cm<sup>3</sup>)</td> </tr> <tr> <td><b>Ignition loss</b> DIN 52 911</td> <td>≤ 25 %</td> </tr> <tr> <td><b>Tensile strength</b> transverse ASTM F 152</td> <td>&gt; 1160 psi (&gt; 8 N/mm<sup>2</sup>)</td> </tr> <tr> <td><b>Creep Relaxation</b> ASTM F 38 B (1/32")</td> <td>16 %</td> </tr> <tr> <td><b>Residual stress</b> DIN 52 913</td> <td></td> </tr> <tr> <td>16 h, 570 °F (300 °C)</td> <td>≈ 2900 psi (≈ 20 N/mm<sup>2</sup>)</td> </tr> <tr> <td>16 h, 350 °F (175 °C)</td> <td>≈ 4640 psi (≈ 32 N/mm<sup>2</sup>)</td> </tr> <tr> <td colspan="2"><b>VR-Hot compression test (@7250psi)</b></td> </tr> <tr> <td>Thickness decrease 68 °F (20 °C)</td> <td>10 %</td> </tr> <tr> <td>Thickness decrease additional, at maximum continuous application temperature</td> <td>17 % (480 °F / 250 °C)</td> </tr> <tr> <td colspan="2"><b>Compressibility and recovery</b></td> </tr> <tr> <td colspan="2">ASTM F 36, procedure J</td> </tr> <tr> <td>compressibility</td> <td>7 - 15 %</td> </tr> <tr> <td>recovery</td> <td>≥ 50 %</td> </tr> <tr> <td colspan="2"><b>Sealability</b> against nitrogen</td> </tr> <tr> <td>ASTM F 37 B (1/32")</td> <td>0.14 ml/h</td> </tr> <tr> <td>DIN 3535, part 6 FA</td> <td>&lt; 1.0 cm<sup>3</sup>/min</td> </tr> <tr> <td><b>Swelling</b> ASTM F 146</td> <td></td> </tr> </table>	<b>Density</b>	119 - 131 lb/ft <sup>3</sup> (1.9 - 2.1 g/cm <sup>3</sup> )	<b>Ignition loss</b> DIN 52 911	≤ 25 %	<b>Tensile strength</b> transverse ASTM F 152	> 1160 psi (> 8 N/mm <sup>2</sup> )	<b>Creep Relaxation</b> ASTM F 38 B (1/32")	16 %	<b>Residual stress</b> DIN 52 913		16 h, 570 °F (300 °C)	≈ 2900 psi (≈ 20 N/mm <sup>2</sup> )	16 h, 350 °F (175 °C)	≈ 4640 psi (≈ 32 N/mm <sup>2</sup> )	<b>VR-Hot compression test (@7250psi)</b>		Thickness decrease 68 °F (20 °C)	10 %	Thickness decrease additional, at maximum continuous application temperature	17 % (480 °F / 250 °C)	<b>Compressibility and recovery</b>		ASTM F 36, procedure J		compressibility	7 - 15 %	recovery	≥ 50 %	<b>Sealability</b> against nitrogen		ASTM F 37 B (1/32")	0.14 ml/h	DIN 3535, part 6 FA	< 1.0 cm <sup>3</sup> /min	<b>Swelling</b> ASTM F 146	
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**in IRM 903 Oil** (replaces ASTM Oil No. 3)

5 h, 300 °F (150 °C)

increase in thickness	0 - 10 %
increase in weight	15 % maximum

**in ASTM Fuel B**

5 h, ambient temperature

increase in thickness	0 - 10 %
increase in weight	10 % maximum

**in water / antifreeze** (50:50)

5 h, 210 °F (100 °C)

increase in thickness	0 - 5 %
increase in weight	10 % maximum

Temporary <b>peak temperature</b>	750 °F (400 °C)
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Maximum <b>continuous temperature</b>	480 °F (250 °C)
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Maximum <b>operating pressure</b>	1450 psi (100 bar)
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ASTM F 104 "line call-out"	F712110A9B3E12M4
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**Maximum continuous temperature and maximum pressure must not occur simultaneously, please refer to the table entitled "[Max. operating pressures at various temperatures and with various media](#)"!**

**Sealing parameters** see table: "[Sealing parameters](#)"



The data quoted above are valid for the material "as delivered" without any additional treatment. In view of the multiplicity of possible installation and operating conditions, definitive conclusions cannot be drawn for all applications regarding the behavior in a sealing joint. For this reason, we do not give any warranty for technical data. They do not represent warranted properties. If you have any doubt, please contact us and specify exact operating conditions.

**Form of delivery**

<b>Sheets</b>	60 x 60 inch, 60 x 120 inch, 60 x 180 inch
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**Nominal thicknesses and tolerances**acc. to ASTM F 104 (**inch**)

Limits of size within a delivery

1/64	1/32	3/64	1/16	3/32	1/8
+ 0.005	± 0.005	± 0.005	± 0.008	± 0.008	± 0.008
- 0.002					

More exact tolerances by arrangement.

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