

VICTOR REINZ® VR 80
Technical Data Sheet US/330
 Edition: 06/2004

Material	VR 80 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.
Properties	VR 80 is conformable, reliably seals off gases and fluids and exhibits good mechanical and thermal strength. VR 80 is a standard quality suitable for moderate operating requirements.
Application	For compressors, pipelines, apparatus, transmissions, gas meters and internal combustion engines. To seal off transmission, hydraulic, refrigerating and motor oils as well as fuels; to seal off mixtures of water and antifreeze and corrosion inhibitors; to seal off freons, alkaline solutions and solvents.
Surfaces	The standard version of VR 80 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.
Approvals	<p>DIN-DVGW acc. to DIN 3535, part 6 FA</p> <p>BAM German Federal Institute for Materials Research and Testing, flanged joints of oxygen carrying steel pipes up to 1450 psi (100 bar) and 176 °F (80 °C).</p> <p>VP 401 Gaskets with higher thermal resistance</p> <p>HTB Higher thermal resistance according to DIN 3374/3376 at 1.45 psi (0.1 bar) and 14.5 psi (1.0 bar) and 1200 °F/30 min (650 °C/30 min).</p>

Technical Data
Nominal thickness
0.08" (2.00 mm)
unless otherwise
specified

Density	109 - 122 lb/ft ³ (1.75 - 1.95 g/cm ³)
Ignition loss DIN 52 911	≤ 36 %
Tensile strength transverse	> 1740 psi (> 12 N/mm ²)
ASTM F 152	
Creep Relaxation ASTM F 38 B (1/32")	15 %
Residual stress DIN 52 913	
16 h, 570 °F (300 °C)	≈ 3626 psi (≈ 25 N/mm ²)
16 h, 350 °F (175 °C)	≈ 5220 psi (≈ 36 N/mm ²)
VR-Hot compression test (@7250psi)	
Thickness decrease 68 °F (20 °C)	11 %
Thickness decrease additional, at maximum continuous application temperature	8 % (480 °F / 250 °C)
Compressibility and recovery ASTM F 36, procedure J	
compressibility	7 - 15 %
recovery	≥ 50 %
Sealability against nitrogen	
ASTM F 37 B (1/32")	0.22 ml/h
DIN 3535, part 6 FA	< 1.0 cm ³ /min
Swelling ASTM F 146	
in IRM 903 Oil (replaces ASTM Oil No. 3) 5 h, 300 °F (150 °C)	
increase in thickness	0 - 10 %
increase in weight	10 % 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 peak temperature	750 °F (400 °C)
Maximum continuous temperature	480 °F (250 °C)
Maximum operating pressure	1450 psi (100 bar)
ASTM F 104 "line call-out"	F712110A9B2E12M5



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

Sheets 60 x 60 inch, 60 x 120 inch, 60 x 180 inch

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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