

Burasil Basic 9544/B

Standards and approvals

- DVGW
- HTB
- WRc

Forms of supply

- Sheets: 1,500 x 1,500/ 1,000 x 1,500/ 3,000 x 1,500 mm
- Thicknesses: 0.3 /0.5 /1.0 /1.5 /2.0 /3.0 mm
- Gaskets and rings

Recommended applications

- Process industry
- Pulp and paper industry
- Water and waste water technology
- Mining industry
- Building services industry
- Shipbuilding
- Sugar industry
- Metal production and processing
- Centrifugal pumps
- Covers
- Hatches
- Flange connections
- Pipe connections

Physical properties (Gasket thickness 2.00 mm)

Property	Standard	Unity	Value*
Density	DIN 28 090-2	[g/cm³]	1.70
Tensile strength	DIN 52 910		
longitudinal		[N/mm²]	14
transverse		[N/mm²]	6
Residual stress $\sigma_{dE/16}$	DIN 52 913		
175°		[N/mm²]	28
300°C,		[N/mm²]	18
Compressibility	ASTM F 36 J	[%]	6
Recovery	ASTM F 36 J	[%]	55
Cold compressibility ϵ_{KSW}	DIN 28 090-2	[%]	8.0
Cold recovery ϵ_{KRW}	DIN 28 090-2	[%]	3.0
Hotcreep $\epsilon_{WSW/200}$	DIN 28 090-2	[%]	22.0
Hot recovery $\epsilon_{WRW/200}$	DIN 28 090-2	[%]	2.0
Recovery R	DIN 28 090-2	[mm]	0.040
Leakage rate	DIN 3535-6	[mg/(m·s)]	≤ 0.100
Specific leakage rate $\lambda_{2,0}$	DIN 28 090-2	[mg/(m·s)]	0.100
Fluid resistance	ASTM F 146		
ASTM IRM903	5h/150°C		
Weight change		[%]	7
Thickness increase		[%]	2
ASTM Fuel B	5h/23°C		
Weight change		[%]	9
Thickness increase		[%]	5
Leachable Chloride content	FZT PV-001-133	[ppm]	≤ 150

Gasket characteristics acc. DIN EN 13555 (02/2005)

T [°C]	Tightness- class L	Q _{min(L)} [N/mm ²]				Q _{Smin(L)} [N/mm ²]															
						Q [N/mm ²]				Q [N/mm ²]				Q [N/mm ²]				Q [N/mm ²]			
		P _i [bar]				20	40	60	80	20	40	60	80	20	40	60	80	40	60	80	
		P _i [bar]				P _i [bar]				P _i [bar]				P _i [bar]				P _i [bar]			
		10	20	40	80	10				20				40				80			
	L _{1,0}	<5	<10	<10	<20	<5	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
	L _{0,1}	7	10	16	22	<5	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
RT	L _{0,01}	14	26	35	49	<5	<5	<5	<5	---	<10	<10	<10	<10	---	10	<10	<10	<10	<10	
	L _{0,001}	35	54	69	---	---	8	<5	<5	---	---	18	<10	---	---	---	16	---	---	---	
Q _{Smax} [N/mm ²]		P _{QR} Stiffness 500 kN/mm				E _G [N/mm ²]															
		Q [N/mm ²]				Q [N/mm ²]															
		30	50	Q _{Smax}		10	20	30	40	50	60	70	80	100	120	140	160	180	200	220	
RT	>220	0.94	0.95	0.98		1791	1952	2114	2275	2437	2598	2760	2921	3244	3567	3890	4213	4536	4859	5182	
100	200	0.92	0.91	0.84		1124	1276	1427	1578	1729	1880	2031	2183	2485	2787	3090	3392	3694	3997	---	
200	160	0.90	0.84	0.75		840	975	1109	1243	1377	1511	1645	1779	2047	2316	2584	2852	---	---	---	

Test sample: DN40/PN40 acc. EN 1514-1: 49 x 92 mm

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Gasket characteristics acc. DIN 28090-1, AD-Merkblatt B7, DIN V 2505, ASME-Code

DIN 28090 Part 1 (9/95) (DIN E 2505 Part 2)										AD-Merkblatt B7 DIN V 2505		ASME-Code			
P _I [bar]	Thickness h _D [mm]	σ _{VU} [N/mm ²]	σ _{V0} [N/mm ²]	m	σ _{B0} [N/mm ²]					b _D : h _D	k _D xK _D [N/mm]	k ₁ [mm]	m	y [psi]	y [N/mm ²]
					20°C	100°C	200°C	300°C	400°C						
10	1.0	<10	360	1.3	360	70	45	30	-	10 : 1	10 x b _D	1.3 x b _D	2.5	1450	10
	1.5	11	240	1.3	240	55	35	20	-	6.7 : 1	11 x b _D	1.3 x b _D	2.5	1595	11
	2.0	12	180	1.3	180	40	25	10	-	5 : 1	12 x b _D	1.3 x b _D	2.5	1740	12
	3.0	12	120	1.3	120	30	15	5	-	3.3 : 1	12 x b _D	1.3 x b _D	2.5	1740	12
16	1.0	11	360	1.3	360	70	45	30	-	10 : 1	11 x b _D	1.3 x b _D	2.5	1595	11
	1.5	15	240	1.3	240	55	35	20	-	6.7 : 1	15 x b _D	1.3 x b _D	2.5	2175	15
	2.0	17	180	1.3	180	40	25	10	-	5 : 1	17 x b _D	1.3 x b _D	2.5	2465	17
	3.0	17	120	1.3	120	30	15	5	-	3.3 : 1	17 x b _D	1.3 x b _D	2.5	2465	17
25	1.0	15	360	1.3	360	70	45	30	-	10 : 1	15 x b _D	1.3 x b _D	2.5	2175	15
	1.5	20	240	1.3	240	55	35	20	-	6.7 : 1	20 x b _D	1.3 x b _D	2.5	2900	20
	2.0	22	180	1.3	180	40	25	10	-	5 : 1	22 x b _D	1.3 x b _D	2.5	3190	22
	3.0	22	120	1.3	120	30	15	5	-	3.3 : 1	22 x b _D	1.3 x b _D	2.5	3190	22
40	1.0	22	360	1.3	360	70	45	30	-	10 : 1	22 x b _D	1.3 x b _D	2.5	3190	22
	1.5	25	240	1.3	240	55	35	20	-	6.7 : 1	25 x b _D	1.3 x b _D	2.5	3625	25
	2.0	27	180	1.3	180	40	25	10	-	5 : 1	27 x b _D	1.3 x b _D	2.5	3915	27
	3.0	27	120	1.3	120	30	15	5	-	3.3 : 1	27 x b _D	1.3 x b _D	2.5	3915	27

- m The m-factor is a value to describe the minimum surface pressure under operating conditions. Up to now there does not exist a definite test specification. The m-factor can be looked at in different ways and depends on the tightness class, the temperature and the surface pressure in the installed state. Within the Brite EuRam research project m-factors between 1.3 and 3.8 were found as average values for graphite gaskets. The user may judge to calculate with different factors (e.g. m = 2).
- m The m-factors according to DIN 28090 and ASME-code are defined variably - from this reason the values differ