

PENBERTHY

application report

Section 2000
 Application Report 2779.1
 Issued 07/05
 Replaces 04/97

For: **FLAT GLASS – TRANSPARENT PRESSURE/TEMPERATURE RATINGS USING STANDARD GASKET MATERIAL^A**

SERIES	GLASS SIZE	MAXIMUM WORKING PRESSURE/TEMPERATURE psig (kPa) AT TEMPERATURES UP TO:						
		100°F (38°C)	200°F (93°C)	250°F (121°C)	300°F (149°C)	400°F (204°C)	500°F (260°C)	600°F (316°C)
TL all materials	1	2000 (13790)	1930 (13310)	1900 (13100)	1870 (12890)	1790 (12340)	1660 (11450)	1480 (10200)
	2	1815 (12510)	1750 (12070)	1720 (11860)	1690 (11650)	1620 (11170)	1510 (10410)	1340 (9240)
	3	1630 (11240)	1580 (10890)	1550 (10690)	1520 (10480)	1460 (10070)	1360 (9380)	1210 (8340)
	4	1440 (9930)	1390 (9580)	1365 (9410)	1340 (9240)	1290 (8890)	1200 (8270)	1060 (7310)
	5	1250 (8620)	1210 (8340)	1190 (8200)	1170 (8070)	1120 (7720)	1040 (7170)	920 (6340)
	6	1065 (7340)	1030 (7100)	1015 (7000)	995 (6860)	950 (6550)	890 (6140)	790 (5450)
	7	875 (6030)	845 (5830)	830 (5720)	815 (5620)	785 (5410)	730 (5030)	645 (4450)
	8	690 (4760)	665 (4580)	655 (4520)	645 (4450)	620 (4270)	575 (3960)	510 (3520)
	9	500 (3450)	480 (3310)	475 (3270)	465 (3210)	445 (3070)	415 (2860)	370 (2550)

TM, TMR all materials	1	2500 (17240)	2420 (16690)	2380 (16410)	2340 (16130)	2240 (15440)	2080 (14340)	1850 (12760)
	2	2315 (15960)	2250 (15510)	2210 (15240)	2170 (14960)	2090 (14410)	1940 (13380)	1720 (11860)
	3	2130 (14690)	2060 (14200)	2025 (13960)	1990 (13720)	1910 (13170)	1770 (12200)	1575 (10860)
	4	1940 (13380)	1875 (12930)	1845 (12720)	1810 (12480)	1740 (12000)	1620 (11170)	1435 (9890)
	5	1750 (12070)	1690 (11650)	1660 (11450)	1630 (11240)	1570 (10820)	1460 (10070)	1295 (8930)
	6	1565 (10790)	1510 (10410)	1485 (10240)	1460 (10070)	1400 (9650)	1305 (9000)	1160 (8000)
	7	1375 (9480)	1330 (9170)	1305 (9000)	1280 (8830)	1230 (8480)	1145 (7890)	1015 (7000)
	8	1190 (8200)	1150 (7930)	1130 (7790)	1110 (7650)	1065 (7340)	990 (6830)	880 (6070)
	9	1000 (6890)	970 (6690)	955 (6580)	935 (6450)	895 (6170)	835 (5760)	740 (5100)

TH, THR all materials	4 - 9	3000 (20680)	2920 (20130)	2885 (19890)	2850 (19650)	2780 (19170)	2600 (17930)	2310 (15930)
Sts Covers	4 - 9	1610 (11100)	1610 (11100)	1550 (10690)	1490 (10270)	1240 (8550)	1130 (7790)	1040 (7170)

TLC all materials	4 - 9	1580 (10890)	1540 (10620)	1520 (10480)	1500 (10340)	1460 (10070)	1370 (9450)	1220 (8410)
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TMW all materials	1	2000 (13790)	1925 (13270)	1890 (13030)	1850 (12760)	1790 (12340)	1665 (11480)	1480 (10200)
	2	1850 (12760)	1785 (12310)	1755 (12100)	1725 (11890)	1670 (11510)	1540 (10620)	1375 (9480)
	3	1700 (11720)	1640 (11310)	1610 (11100)	1575 (10860)	1525 (10510)	1420 (9790)	1260 (8690)
	4	1550 (10690)	1490 (10270)	1465 (10100)	1435 (9890)	1390 (9580)	1290 (8890)	1145 (7890)
	5	1400 (9650)	1350 (9310)	1325 (9140)	1300 (8960)	1255 (8650)	1165 (8030)	1035 (7140)
	6	1250 (8620)	1200 (8270)	1180 (8140)	1160 (8000)	1120 (7720)	1045 (7200)	925 (6380)
	7	1100 (7580)	1060 (7310)	1040 (7170)	1020 (7030)	980 (6760)	910 (6270)	810 (5580)
	8	950 (6550)	920 (6340)	900 (6210)	880 (6070)	850 (5860)	795 (5480)	700 (4830)
	9	800 (5520)	770 (5310)	755 (5210)	740 (5100)	715 (4930)	665 (4580)	590 (4070)

TU all materials	ALL	6000 (41370)	6000 (41370)	6000 (41370)	6000 (41370)	6000 (41370)	6000 (41370)
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^A optional gasket material may result in a derated maximum pressure for the gage

PENBERTHY

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Section 2000
 Application Report 2779.2
 Issued 07/05
 Replaces 04/97

For: **FLAT GLASS – TRANSPARENT PRESSURE/TEMPERATURE RATINGS
 USING STANDARD GASKET MATERIAL^A AND ALUMIMOSILICATE GLASS**

SERIES	GLASS SIZE	MAXIMUM WORKING PRESSURE psig (kPa) AT TEMPERATURES UP TO:		
		600°F (316°C)	750°F (399°C)	800°F (427°C)
TL all materials	1	1480 (10200)	N/A	N/A
	2	1340 (9240)	N/A	N/A
	3	1210 (8340)	N/A	N/A
	4	1060 (7310)	N/A	N/A
	5	920 (6340)	N/A	N/A
	6	790 (5450)	N/A	N/A
	7	645 (4450)	N/A	N/A
	8	510 (3520)	N/A	N/A
	9	370 (2550)	N/A	N/A

TM, TMR all materials	1	1850 (12760)	1420 (9790)	1280 (8830)
	2	1720 (11860)	1325 (9140)	1190 (8200)
	3	1575 (10860)	1210 (8340)	1085 (7480)
	4	1435 (9890)	1100 (7580)	990 (6830)
	5	1295 (8930)	995 (6860)	890 (6140)
	6	1160 (8000)	885 (6100)	795 (5480)
	7	1015 (7000)	780 (5380)	700 (4830)
	8	880 (6070)	675 (4650)	605 (4170)
	9	740 (5100)	565 (3900)	505 (3480)

TH, THR				
all materials	4 - 9	2310 (15930)	1875 (12930)	1730 (11930)
Sts Covers	4 - 9	1040 (7170)	905 (6240)	860 (5930)

TLC	4 - 9	1220 (8410)	995 (6860)	920 (6340)
all materials				

TMW all materials	1	1480 (10200)	1135 (7830)	1020 (7030)
	2	1375 (9480)	1055 (7270)	950 (6550)
	3	1260 (8690)	960 (6620)	860 (5930)
	4	1145 (7890)	880 (6070)	790 (5450)
	5	1035 (7140)	785 (5410)	700 (4830)
	6	925 (6380)	705 (4860)	630 (4340)
	7	810 (5580)	615 (4240)	550 (3790)
	8	700 (4830)	540 (3720)	485 (3340)
	9	590 (4070)	450 (3100)	400 (2760)

^A optional gasket material may result in a derated maximum pressure for the gage

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Section 2000
 Application Report 2779.3
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 Replaces 04/97

For: **FLAT GLASS – TRANSPARENT PRESSURE/TEMPERATURE RATINGS USING STANDARD GASKET MATERIAL^A AND STEEL MR0175/MR0103 NACE BOLTING**

SERIES	GLASS SIZE	MAXIMUM WORKING PRESSURE psig (kPa) AT TEMPERATURES UP TO:						
		100°F (38°C)	200°F (93°C)	250°F (121°C)	300°F (149°C)	400°F (204°C)	500°F (260°C)	600°F (316°C)
TL ^B all materials	1	1800 (12410)	1735 (11960)	1710 (11790)	1685 (11620)	1610 (11100)	1495 (10310)	1330 (9170)
	2	1635 (11270)	1575 (10860)	1550 (10690)	1520 (10480)	1460 (10070)	1360 (9380)	1205 (8310)
	3	1465 (10100)	1420 (9790)	1395 (9620)	1370 (9450)	1315 (9070)	1225 (8450)	1090 (7520)
	4	1295 (8930)	1250 (8620)	1230 (8480)	1205 (8310)	1160 (8000)	1080 (7450)	955 (6580)
	5	1125 (7760)	1090 (7520)	1070 (7380)	1055 (7270)	1010 (6960)	935 (6450)	830 (5720)
	6	960 (6620)	925 (6380)	915 (6310)	895 (6170)	855 (5890)	800 (5520)	710 (4900)
	7	790 (5450)	760 (5240)	745 (5140)	735 (5070)	705 (4860)	655 (4520)	580 (4000)
	8	620 (4270)	600 (4140)	590 (4070)	580 (4000)	560 (3860)	520 (3590)	460 (3170)
	9	450 (3100)	430 (2960)	425 (2930)	420 (2900)	400 (2760)	375 (2590)	335 (2310)
TM, TMR all materials	1	2250 (15510)	2180 (15030)	2140 (14750)	2105 (14510)	2015 (13890)	1870 (12890)	1665 (11480)
	2	2085 (14380)	2025 (13960)	1990 (13720)	1955 (13480)	1880 (12960)	1745 (12030)	1550 (10690)
	3	1915 (13200)	1855 (12790)	1825 (12580)	1790 (12340)	1720 (11860)	1595 (11000)	1420 (9790)
	4	1745 (12030)	1690 (11650)	1660 (11450)	1630 (11240)	1565 (10790)	1460 (10070)	1290 (8890)
	5	1575 (10860)	1520 (10480)	1495 (10310)	1465 (10100)	1415 (9760)	1315 (9070)	1165 (8030)
	6	1410 (9720)	1360 (9380)	1335 (9200)	1315 (9070)	1260 (8690)	1175 (8100)	1045 (7200)
	7	1240 (8550)	1195 (8240)	1175 (8100)	1150 (7930)	1105 (7620)	1030 (7100)	915 (6310)
	8	1070 (7380)	1035 (7140)	1015 (7000)	1000 (6890)	960 (6620)	890 (6140)	790 (5450)
	9	900 (6210)	875 (6030)	860 (5930)	840 (5790)	805 (5550)	750 (5170)	665 (4580)
TH, THR all materials	4 - 9	2700 (18620)	2630 (18130)	2595 (17890)	2565 (17680)	2500 (17240)	2340 (16130)	2080 (14340)
Sts Covers	4 - 9	1450 (10000)	1450 (10000)	1395 (9620)	1340 (9240)	1115 (7690)	1015 (7000)	935 (6450)
TLC all materials	4 - 9	1420 (9790)	1385 (9550)	1370 (9450)	1350 (9310)	1315 (9070)	1235 (8510)	1100 (7580)
TMW all materials	1	1800 (12410)	1735 (11960)	1700 (11720)	1665 (11480)	1610 (11100)	1500 (10340)	1330 (9170)
	2	1665 (11480)	1605 (11070)	1580 (10890)	1555 (10720)	1505 (10380)	1385 (9550)	1240 (8550)
	3	1530 (10550)	1475 (10170)	1450 (10000)	1420 (9790)	1375 (9480)	1280 (8830)	1135 (7830)
	4	1395 (9620)	1340 (9240)	1320 (9100)	1290 (8890)	1250 (8620)	1160 (8000)	1030 (7100)
	5	1260 (8690)	1215 (8380)	1195 (8240)	1170 (8070)	1130 (7790)	1050 (7240)	930 (6410)
	6	1125 (7760)	1080 (7450)	1060 (7310)	1045 (7200)	1010 (6960)	940 (6480)	835 (5760)
	7	990 (6830)	955 (6580)	935 (6450)	920 (6340)	880 (6070)	820 (5650)	730 (5030)
	8	855 (5890)	830 (5720)	810 (5580)	790 (5450)	765 (5270)	715 (4930)	630 (4340)
	9	720 (4960)	695 (4790)	680 (4690)	665 (4580)	645 (4450)	600 (4140)	530 (3650)
TU all materials	ALL	5400 (37230)	5400 (37230)	5400 (37230)	5400 (37230)	5400 (37230)	5400 (37230)	5400 (37230)

^A optional gasket material may result in a derated maximum pressure for the gage

^B not to be used for Environmental Nace applications

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application report

Section 2000
 Application Report 2779.4
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 Replaces 04/97

For: **FLAT GLASS – TRANSPARENT PRESSURE/TEMPERATURE RATINGS USING
 STANDARD GASKET MATERIAL^A AND STAINLESS STEEL MR0175/MR0103 NACE BOLTING**

MAXIMUM WORKING PRESSURE psig (kPa) AT TEMPERATURES UP TO 100°F (38°C)

SERIES	GLASS SIZE	
TL ^B all materials	1	1880 (12960)
	2	1510 (10410)
	3	1630 (11240)
	4	1440 (9930)
	5	1250 (8620)
	6	1065 (7340)
	7	875 (6030)
	8	690 (4760)
	9	500 (3450)

SERIES	GLASS SIZE	
TM, TMR all materials	1	1880 (12960)
	2	1510 (10410)
	3	1685 (11620)
	4	1450 (10000)
	5	1565 (10790)
	6	1565 (10790)
	7	1375 (9480)
	8	1190 (8200)
	9	1000 (6890)

SERIES	GLASS SIZE	
TH, THR all materials	4	1475 (10170)
	5	1595 (11000)
	6	1665 (11480)
	7	1490 (10270)
	8	1505 (10380)

SERIES	GLASS SIZE	
TLC all materials	4	1240 (8550)
	5	1345 (9270)
	6	1405 (9690)
	7	1260 (8690)
	8	1275 (8790)

SERIES	GLASS SIZE	
Sts Covers	4	795 (5480)
	5	855 (5890)
	6	895 (6170)
	7	800 (5520)
	8	810 (5580)

SERIES	GLASS SIZE	
TMW all materials	1	1880 (12960)
	2	1510 (10410)
	3	1685 (11620)
	4	1450 (10000)
	5	1400 (9650)
	6	1250 (8620)
	7	1100 (7580)
	8	950 (6550)
	9	800 (5520)

SERIES	GLASS SIZE	
TU all materials	1	6000 (41370)
	3	5830 (40200)
	4	4950 (34130)
	5	5295 (36510)
	7	3300 (22750)

^A optional gasket material may result in a derated maximum pressure for the gage
^B not to be used for Environmental Nace applications