

Clear ophthalmic  
Lenses



Transitions® Photochromic  
Lenses



Acclimates™ Photochromic  
Lenses



NuPolar® Polarized  
Lenses



Drivewear® Polarized  
Photochromic Lenses

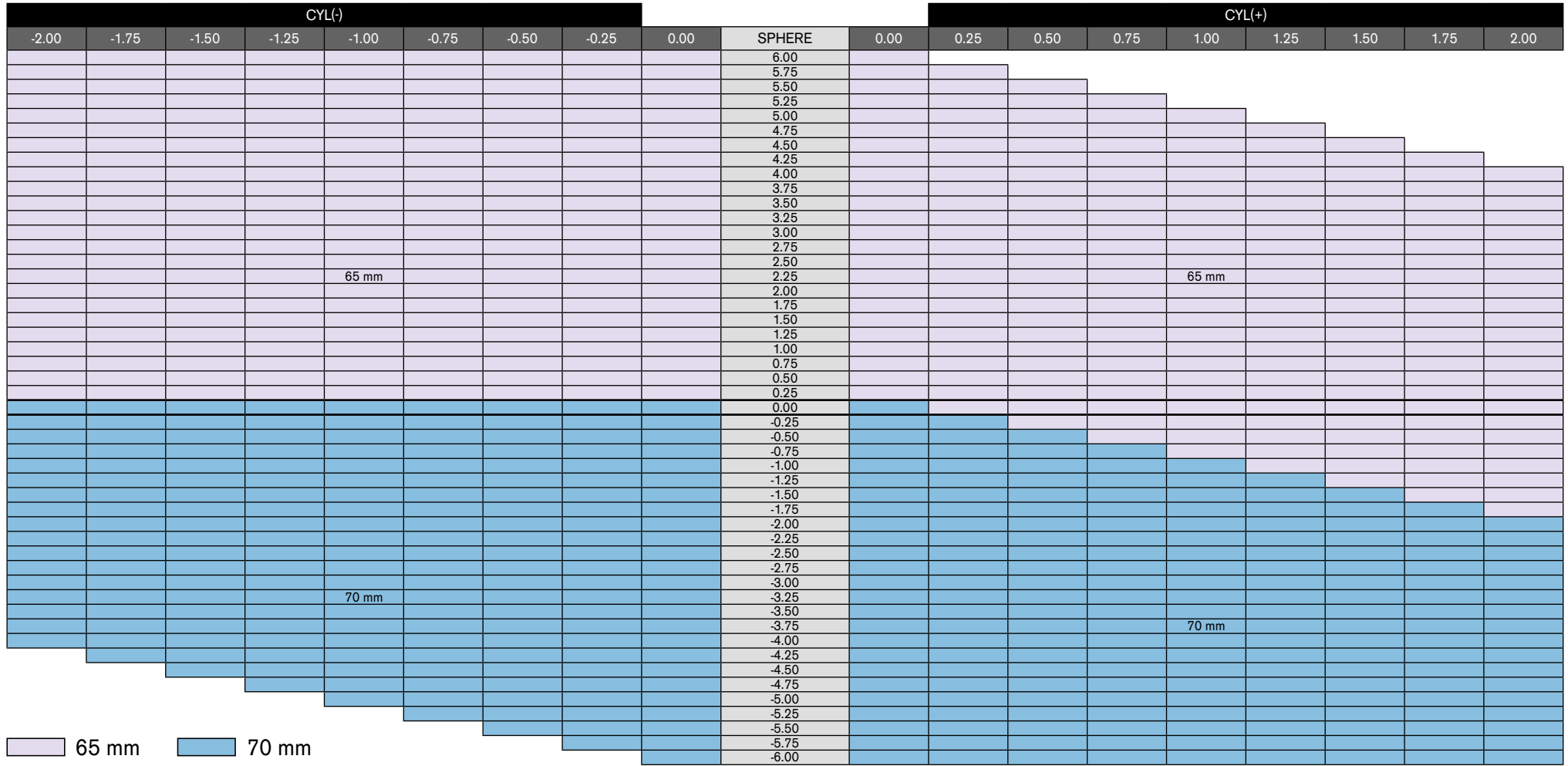
# Clear Lenses

# Clear ophthalmic Lenses



# Clear FSV Trilogy<sup>®</sup> HC & HMC

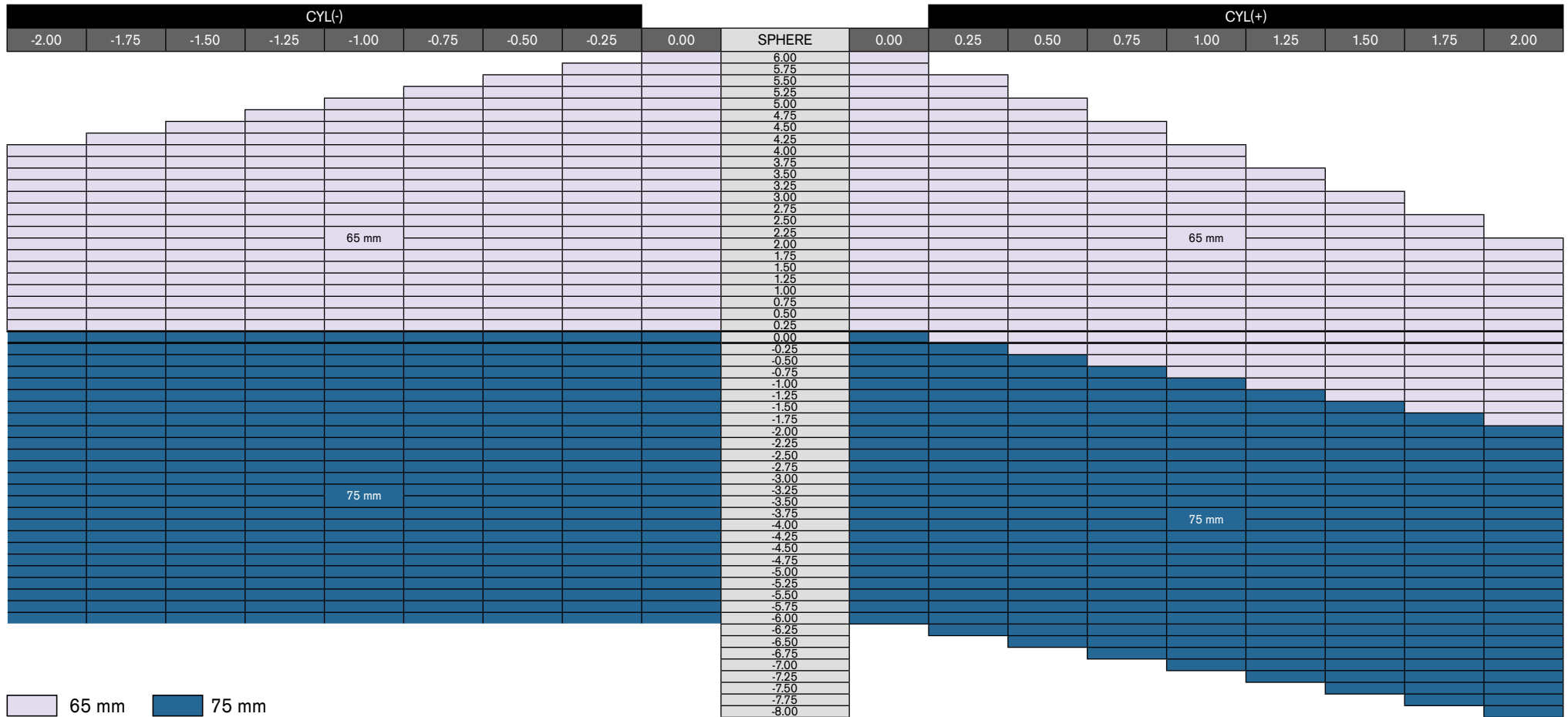
MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION
TRIVEX <sup>®</sup>	SPHERICAL	1.53	45	1.1	100 %



65 mm 70 mm

# Clear 1.60 FSV Spherical Super Hydrophobic AR Coated

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION
MR-8	SPHERICAL	1.60	42	1.30	100 %



65 mm 75 mm

# Clear 1.67 FSV Single Aspheric Super Hydrophobic AR Coated

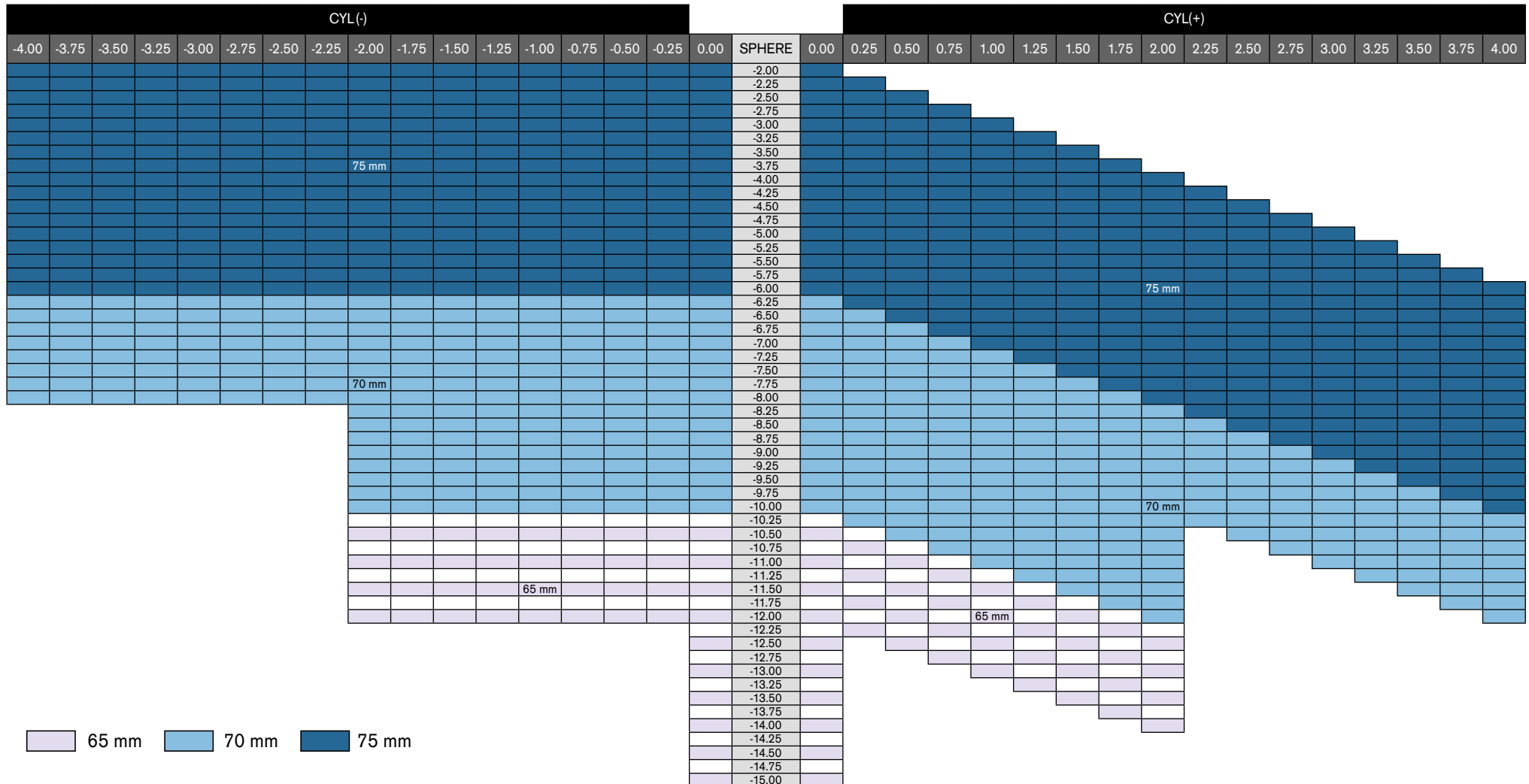
MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION
MR-7	SINGLE ASPHERIC	1.67	31	1.30	100 %

CYL(-)								SPHERE	CYL(+)								
-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25		0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
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								-9.75									
								-10.00									

65 mm 70 mm 75 mm

# Clear 1.74 FSV Double Aspheric Super Hydrophobic AR Coated

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION
MR-174	DOUBLE ASPHERIC	1.74	33	1.47	100 %



# Clear 1.50 SFSV Hard Resin (uncoated & hardcoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>-11.00 TO +8.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE		RADIUS	SAG AT 50 (mm)	THICKNESS (mm)		RX RANGE
		FRONT	BACK			CENTER	EDGE	
76	1.25	1,21	4,33	437,87	0,76	11,65	15,89	-11.00 to +8.00
76	2.25	2,27	4,33	233,95	1,4	12,92	15,74	
76	3.25	3,22	4,32	164,39	1,98	14,14	15,67	
76	4.25	4,23	6,26	125,22	2,59	9,52	12,41	
76	5.25	5,22	6,25	101,48	3,21	11,12	12,61	
76	6.25	6,23	6,27	85,03	3,85	8,48	8,26	
76	7.25	7,23	6,27	73,29	4,49	10,04	8,27	
76	8.25	8,26	6,27	64,18	5,16	12,43	8,77	

## EXTRA ET

DIAMETER	NOMINAL CURVE	TRUE CURVE		RADIUS	SAG AT 50 (mm)	THICKNESS (mm)		RX RANGE
		FRONT	BACK			CENTER	EDGE	
76	7.25	7,27	6,27	72,88	4,51	17,68	16,44	-5.00 to +8.00
76	8.25	8,29	6,27	63,94	5,18	19,39	16,1	

# Clear SFSV 76 mm spherical Trilogy® (uncoated & hardcoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>TRIVEX®</b>	<b>SPHERICAL</b>	<b>1.53</b>	<b>45</b>	<b>1.1</b>	<b>100 %</b>	<b>-9.75 TO + 7.50</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
76	0.50	0.49	4.25	17.1	12.5	0.29	1081.63	-9.75D to +7.50D
76	1.25	1.25	4.25	14.4	10.8	0.74	424.00	
76	2.25	2.26	4.25	14.6	12.3	1.34	234.51	
76	3.25	3.26	4.25	14.3	13.4	1.93	162.58	
76	4.25	4.23	4.25	14.5	14.8	2.52	125.30	
76	5.25	5.33	6.25	7.7	6.8	3.19	99.44	
76	6.25	6.24	6.25	7.4	8.1	3.76	84.94	
76	7.25	7.33	6.25	7.5	9.8	4.44	72.31	
76	8.25	8.27	6.25	7.3	11.3	5.08	64.09	



# Clear SFSV 65 mm spherical Trilogy® (uncoated & hardcoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>TRIVEX®</b>	<b>SPHERICAL</b>	<b>1.53</b>	<b>45</b>	<b>1.1</b>	<b>100 %</b>	<b>-9.50 TO + 7.50</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
65	0.50	0.49	4.25	12.0	8.7	0.29	1081.63	-9.50D to +7.50D
65	1.25	1.23	4.25	12.0	9.5	0.73	430.89	
65	2.25	2.26	4.25	12.0	10.4	1.34	234.51	
65	3.25	3.26	4.25	9.1	8.7	1.93	162.58	
65	4.25	4.23	4.25	8.9	9.5	2.52	125.30	
65	5.25	5.33	6.25	8.7	8.4	3.19	99.44	
65	6.25	6.24	6.25	6.1	6.9	3.76	84.94	
65	7.25	7.31	6.25	6.1	8.1	4.45	72.50	
65	8.25	8.27	6.25	6.0	9.1	5.08	64.09	

# Clear SFSV aspheric Trilogy® (uncoated & hardcoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>TRIVEX®</b>	<b>ASPHERIC</b>	<b>1.53</b>	<b>45</b>	<b>1.1</b>	<b>100 %</b>	<b>-9.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
76	0.50	0.62	6.25	14.5	7.0	0.370	854.84	-9.00 to -6.50
76	1.25	1.34	4.25	10.0	7.0	0.790	395.52	-6.25 to -4.25
76	2.25	2.35	4.25	10.0	7.5	1.390	225.53	-4.00 to -2.25
76	3.00	3.09	4.25	7.5	6.5	1.832	171.52	-2.00 to 0.00
76	3.50	3.50	4.25	7.5	6.5	2.080	151.43	+0.25 to +2.00
76	4.25	4.17	4.25	7.5	7.5	2.483	127.10	+2.25 to +3.00
76	5.00	4.94	4.25	7.5	8.5	2.953	107.29	+3.25 to +4.00
76	6.00	5.92	6.25	7.5	6.5	3.561	89.53	+4.25 to +5.00
76	7.00	6.98	6.25	7.5	8.0	4.235	75.93	+5.25 to +6.00

# Clear 1.586 SFSV Polycarbonate (uncoated & hardcoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>POLYCARBONATE</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>100%</b>	<b>-12.00 TO +8.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
75	0.50	0.23	-6.25	14.40	5.60	0.14	2304.30	-6.25 to -12.00
75	2.00	2.45	-6.25	12.20	6.70	1.45	216.30	-6.25 to -8.50
75	4.00	4.26	-6.25	9.00	6.00	2.54	124.40	-2.25 to -6.00
75	5.00	5.00	-6.25	7.9	6.00	2.99	106.00	-2.00 to +3.00
75	6.00	6.02	-6.25	8.00	7.60	3.62	88.00	-2.00 to +5.00
75	8.00	7.93	-6.25	6.50	9.20	4.85	66.80	+5.25 to +8.00

# Clear SFSV 1.60 (uncoated & hardcoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>MR-8</b>	<b>SPHERICAL</b>	<b>1.60</b>	<b>42</b>	<b>1.3</b>	<b>100 %</b>	<b>-15.00 TO +13.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
73	0.50	0.58	6.38	15.1	7.4	0.34	913.793	-15.00 to -11.00
73	1.25	0.95	6.38	14.2	7.0	0.56	557.895	-10.75 to -7.50
73	2.25	1.82	6.38	15.1	9.0	1.08	291.209	-7.25 to -4.50
73	3.25	3.05	6.38	12.6	8.0	1.81	173.770	-4.25 to -1.50
73	4.25	3.98	5.68	12.0	9.6	2.37	133.166	-1.25 to +1.25
73	5.25	4.96	5.68	10.0	9.0	2.97	106.855	+1.50 to +3.00
73	6.25	5.88	5.68	8.9	9.2	3.54	90.136	+3.25 to +5.00
73	7.25	6.91	5.68	7.7	9.5	4.19	76.700	+5.25 to +6.75
73	8.25	7.88	5.68	8.2	11.5	4.82	67.259	+7.00 to +8.75
70	9.25	9.02	8.38	8.5	10.0	5.58	58.760	+9.00 to + 11.00
70	10.25	10.03	8.38	9.5	12.5	6.29	52.840	+11.25 to +13.00

# Clear SFSV Spherical 1.67 (uncoated & hardcoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>MR-10</b>	<b>SPHERICAL</b>	<b>1.67</b>	<b>31</b>	<b>1.37</b>	<b>100 %</b>	<b>-12.00 TO +11.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE		RADIUS FRONT	*SAG AT 50 (mm)	THICKNESS (mm)		RX RANGE
		FRONT	BACK			CENTER	EDGE	
74	1.0	1.07	6.11	495.33	0.63	9.0	16.0	-12.00 to -8.00
74	2.0	1.83	6.11	289.62	1.08	10.3	16.0	-11.00 to -5.00
74	3.0	3.12	6.11	169.87	1.85	9.5	13.5	-4.75 to -2.00
74	4.0	4.11	6.11	128.95	2.45	10.5	13.5	-1.75 to -0.25
74	5.0	5.10	6.11	103.92	3.05	10.5	12.0	0.00 to +2.25
74	6.0	6.10	6.11	86.89	3.67	10.5	10.5	+2.50 to +4.00
74	7.0	7.59	6.11	69.83	4.63	10.7	8.5	+4.25 to +7.00
70	9.0	9.04	6.93	58.63	5.60	11.5	8.4	+7.25 to +8.75
65	12.0	11.96	8.09	44.31	7.73	10.5	5.0	+9.00 to +11.00

# Clear SFSV Aspheric 1.67 (uncoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>MR-10</b>	<b>ASPHERIC</b>	<b>1.67</b>	<b>31</b>	<b>1.37</b>	<b>100 %</b>	<b>-15.00 TO + 9.00</b>

DIAMETER	NOMINAL CURVE (1.53 Index)	TRUE CURVE		RADIUS	SAG AT 50 (mm)	THICKNESS (mm)		RX RANGE
		FRONT	BACK			CENTER	EDGE	
75	0.50	0.52	7.33	1019.23	0.30	12.02	21.04	-15.00 TO +9.00
75	2.25	2.31	7.34	229.44	1.36	12.21	19.03	
75	4.25	4.32	7.34	122.69	2.58	6.54	11.35	
75	6.25	6.55	7.33	80.92	3.99	7.69	9.47	
75	8.25	8.80	7.33	60.23	5.45	10.95	9.60	

# Clear SFSV Spherical 1.74 (uncoated & hardcoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>MR-174</b>	<b>SPHERICAL</b>	<b>1.74</b>	<b>33</b>	<b>1.47</b>	<b>100 %</b>	<b>-13.50 TO +12.50</b>

DIAMETER	NOMINAL CURVE (1.53 Index)	TRUE CURVE		RADIUS	SAG AT 50 (mm)	THICKNESS (mm)		RX RANGE
		FRONT	BACK			CENTER	EDGE	
65	0.50	0.27	9.40	1942.10	0.16	8.50	18.50	-13.50 to -12.25
65	1.00	1.04	9.40	511.81	0.61	7.50	16.80	-12.00 to -5.75
70	1.50	1.57	8.20	338.07	0.93	7.00	15.50	-5.50 to -2.75
75	2.50	2.47	6.90	214.87	1.46	6.10	12.50	-2.50 to -0.25
75	3.50	3.54	4.80	149.80	2.10	6.30	8.00	+0.00 to +1.75
70	5.00	4.78	5.60	110.83	2.86	6.00	7.00	+2.00 to +3.25
70	6.00	6.12	6.20	86.60	3.68	7.00	7.10	+3.50 to +4.25
70	7.00	7.31	6.90	72.47	4.45	7.50	6.90	+4.50 to +6.25
65	8.00	8.32	6.70	63.70	5.11	8.60	6.60	+6.50 to +7.25
65	9.00	8.95	6.70	59.24	5.53	9.50	6.60	+7.50 to +8.50
65	10.00	9.70	6.20	54.63	6.06	10.70	6.50	+8.75 to +10.00
60	10.50	10.55	6.20	50.24	6.66	10.40	6.00	+10.00 to +10.75
60	11.25	11.26	6.20	47.07	7.19	11.30	6.00	+11.00 to +11.50
60	12.00	11.94	5.60	44.38	7.71	13.00	6.00	+11.75 to +12.50

# Clear SFSV Aspheric 1.74 (uncoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>MR-174</b>	<b>ASPHERIC</b>	<b>1.74</b>	<b>33</b>	<b>1.47</b>	<b>100 %</b>	<b>-12.00 TO +10.00</b>

DIAMETER	NOMINAL CURVE (1.53 Index)	TRUE CURVE		RADIUS	SAG AT 50 (mm)	THICKNESS (mm)		RX RANGE
		FRONT	BACK			CENTER	EDGE	
70	0.50	0.38	7.78	1390.57	0.30	5.20	14.20	-12.00 to +10.00
75	1.00	1.02	5.90	519.01	0.76	5.40	11.90	
75	2.00	2.15	5.20	246.49	1.33	4.40	8.50	
75	2.70	2.88	4.76	184.25	1.69	5.50	8.30	
75	3.30	3.24	4.76	163.78	1.84	5.50	8.00	
70	3.60	3.57	4.59	148.29	2.04	5.50	7.10	
70	4.00	3.90	4.59	135.98	2.19	5.50	6.80	
70	4.30	4.28	4.59	123.87	2.37	6.50	6.70	
70	5.00	4.96	4.59	106.81	2.76	7.30	6.80	
65	5.60	5.64	3.29	94.01	3.16	7.90	6.10	
65	6.30	6.31	3.29	83.94	3.53	8.50	6.10	
65	7.00	6.98	3.29	75.90	3.92	9.20	6.10	
65	7.60	7.61	3.29	69.66	4.29	9.80	6.10	



# Clear FT28 Hard Resin (uncoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	ADD RANGE
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>-8.00 TO +6.00</b>	<b>0.75 - 4.00 IN 0.25 STEPS</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
80	2.25	2.30	4.25	15.0	12.0	6	5	1.36	230.43	0.75-4.00	-5.25 to -8.00
80	4.25	4.26	6.25	14.5	11.5	6	5	2.54	124.41	0.75-4.00	-2.25 to -5.00
80	6.25	6.30	6.25	9.5	9.5	6	5	3.80	84.13	0.75-4.00	+2.00 to -2.00
80	8.25	8.30	6.25	9.0	12.5	6	5	5.10	63.86	0.75-4.00	+2.25 to +6.00

# Clear FT28 & FT35 High Add Hard Resin (uncoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>-5.00 TO +2.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
80	4.25	4.26	6.25	14.5	11.5	0	5	2.54	124.41	4.50-8.00 in .50D	-2.25 to -5.00
80	6.25	6.30	6.25	9.5	9.5	0	5	3.80	84.13	4.50-6.00 in .50D	+2.00 to -2.00

# Clear 1.53 FT28 Trilogy® (hardcoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>TRIVEX®</b>	<b>SPHERICAL</b>	<b>1.53</b>	<b>45</b>	<b>1.1</b>	<b>100 %</b>	<b>-8.75 TO +6.25</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.25	2.09	4.00	13.5	10.6	6	6	1.24	253.59	1.00-3.50	-6.25 to 8.00
76	4.25	4.30	4.00	10.5	10.6	6	6	2.56	123.26	1.00-3.50	-3.25 to -6.00
76	6.25	6.21	6.00	9.0	8.7	6	6	3.74	85.35	1.00-3.50	0.00 to +2.00
76	8.25	8.27	6.00	9.0	12.3	6	6	5.08	64.09	1.00-3.50	+2.25 to +6.00

# Clear 1.67 FT28 MR-10 (hardcoated)

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>MR-10</b>	<b>SPHERICAL</b>	<b>1.67</b>	<b>31</b>	<b>1.37</b>	<b>100 %</b>	<b>-10.00 TO +7.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	*SAG AT 50 (mm)	RADIUS	ADD RANGE	RX RANGE
74	1.00	0.99	6.00	15.5	8.0	5	5	0.58	535.35	1.00 – 3.50	-10.00D to +7.00D
74	3.00	3.02	6.00	13.5	9.5	5	5	1.79	175.50	1.00 – 3.50	
74	5.00	5.05	6.00	12.5	11.5	5	5	3.02	104.95	1.00 – 3.50	
74	7.00	7.06	4.43	8.0	12.0	5	5	4.29	75.07	1.00 – 3.50	

# Clear FT35 Hard Resin (uncoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>-8.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.25	2.30	4.25	16.0	13.5	6	5	1.36	230.43	0.75-4.00	-5.25 to -8.00
76	4.25	4.26	6.25	12.0	9.5	6	5	2.54	124.41	0.75-4.00	-2.25 to -5.00
76	6.25	6.30	6.25	8.0	8.5	6	5	3.80	84.13	0.75-4.00	+2.00 to -2.00
76	8.25	8.30	6.25	8.0	11.5	6	5	5.10	63.86	0.75-4.00	+2.25 to +6.00

# Clear FT45 Hard Resin (uncoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>-5.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
80	4.25	4.26	6.25	14.5	11.5	0	5	2.54	124.41	0.75-3.00	-2.25 to -5.00
80	6.25	6.30	6.25	9.5	9.5	0	5	3.80	84.13	0.75-3.00	+2.00 to -2.00
80	8.25	8.31	6.25	9.0	13.0	0	5	5.10	63.78	0.75-3.00	+2.25 to +6.00

# Clear 1.50 Round Segment R40 Hard Resin (uncoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	ADD RANGE
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>-8.00 TO +6.00</b>	<b>0.75 - 4.00 IN 0.25 STEPS</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.25	2.30	4.25	16.0	13.5	0	7	1.36	230.43	0.75-4.00	-5.25 to -8.00
76	4.25	4.26	6.25	12.5	10.0	0	7	2.54	124.41	0.75-4.00	-2.25 to -5.00
76	6.25	6.30	6.25	8.0	8.0	0	7	3.80	84.13	0.75-4.00	+2.00 to -2.00
76	8.25	8.30	6.25	8.0	11.5	0	7	5.10	63.86	0.75-4.00	+2.25 to +6.00

# Clear DD FT28 Hard Resin (uncoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>-5.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
80	4.25	4.26	6.25	14.5	11.5	0	7	2.54	124.41	NOTE	-5.00D to +6.00D
80	6.25	6.30	6.25	9.5	9.5	0	7	3.80	84.13	ADDITIONS	
80	8.25	8.30	6.25	9.0	12.5	0	7	5.10	63.86	BELOW	

**ADD COMBINATIONS:**

<b>60%</b>	<u><b>+1.00</b></u>	<u><b>+1.25</b></u>	<u><b>+1.50</b></u>	<u><b>+1.50</b></u>	<u><b>+1.75</b></u>	<u><b>+2.00</b></u>	
	<u><b>+1.75</b></u>	<u><b>+2.00</b></u>	<u><b>+2.25</b></u>	<u><b>+2.50</b></u>	<u><b>+2.75</b></u>	<u><b>+3.00</b></u>	
<b>100%</b>	<u><b>+1.50</b></u>	<u><b>+1.75</b></u>	<u><b>+2.00</b></u>	<u><b>+2.25</b></u>	<u><b>+2.50</b></u>	<u><b>+2.75</b></u>	<u><b>+3.00</b></u>
	<u><b>+1.50</b></u>	<u><b>+1.75</b></u>	<u><b>+2.00</b></u>	<u><b>+2.25</b></u>	<u><b>+2.50</b></u>	<u><b>+2.75</b></u>	<u><b>+3.00</b></u>



# Clear 1.50 SFSV Base 12 (uncoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>+5.25 TO +10.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
71	12.25	12.18	6.25	7.0	16.5	7.90	43.51	+5.25 to +10.00

# Clear Image<sup>®</sup> Progressive Hard Resin (uncoated & hardcoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	ADD RANGE	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>HARD RESIN</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>100 %</b>	<b>-8.00 TO +6.00</b>	<b>1.00 - 3.00 IN 0.25 STEPS</b>	<b>18 mm</b>	<b>2.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MRP DEC.	SEG INSET	FITTING CROSS ABOVE MRP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
80	2.00	2.02	4.25	14.0	12.0	2.5	2.5	2	1.19	262.38	1.00-3.00	-5.25 to -8.00
80	4.50	4.57	6.25	13.5	11.5	2.5	2.5	2	2.73	115.97	1.00-3.00	-2.25 to -5.00
80	6.50	6.33	6.25	9.0	10.0	2.5	2.5	2	3.82	83.73	1.00-3.00	-2.00 to +2.00
80	8.50	8.34	6.25	8.5	13.5	2.5	2.5	2	5.12	63.55	1.00-3.00	+2.25 to +6.00

# Clear Image® Progressive Trilogy® (uncoated & hardcoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	ADD RANGE	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>TRIVEX®</b>	<b>1.53</b>	<b>45</b>	<b>1.1</b>	<b>100 %</b>	<b>-8.00 TO +6.00</b>	<b>1.00 - 3.00 IN 0.25 STEPS</b>	<b>18 mm</b>	<b>2.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MRP DEC.	SEG INSET	FITTING CROSS ABOVE MRP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.00	2.07	6.25	14.0	9.0	2.5	2.5	2	1.22	256.04	1.00 - 3.00D	-5.25 to -8.00
76	4.50	4.61	6.25	14.0	13.0	2.5	2.5	2	2.75	114.97	1.00 - 3.00D	-2.25 to -5.00
76	6.50	6.32	6.25	8.0	9.0	2.5	2.5	2	3.81	83.86	1.00 - 3.00D	+2.00 to -2.00
76	8.50	8.30	6.25	8.0	12.0	2.5	2.5	2	5.10	63.86	1.00 - 3.00D	+2.25 to +6.00

# Clear Image<sup>®</sup> Progressive Polycarbonate (hardcoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	ADD RANGE	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>POLYCARBONATE</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>100 %</b>	<b>-9.00 TO +6.00</b>	<b>1.00 - 3.00 IN 0.25 STEPS</b>	<b>18 mm</b>	<b>3.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACKCURVE	EDGE	CENTER	MRP DEC	SEG INSET	FITTING CROSS ABOVE MRP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.00	2.02	4.25	13.5	11.0	3.5	2.5	2	1.19	262.38	1.00 - 3.00D	-5.25 to -9.00
76	4.50	4.37	6.25	12.5	11.5	3.5	2.5	2	2.61	121.38	1.00 - 3.00D	-2.25 to -5.00
76	6.50	6.35	6.25	9.5	11.0	3.5	2.5	2	3.83	83.46	1.00 - 3.00D	+2.25 to -2.00
76	8.50	8.33	9.50	11.00	9.5	3.5	2.5	2	5.12	63.62	1.00 - 3.00D	+2.50 to +7.00

# Clear Image® Progressive 1.67 (uncoated)

MATERIAL	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	ADD RANGE	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>MR-10</b>	<b>1.67</b>	<b>31</b>	<b>1.37</b>	<b>100 %</b>	<b>-10.00 TO +7.00</b>	<b>1.00 - 3.50 IN 0.25 STEPS</b>	<b>18 mm</b>	<b>2.5 mm</b>

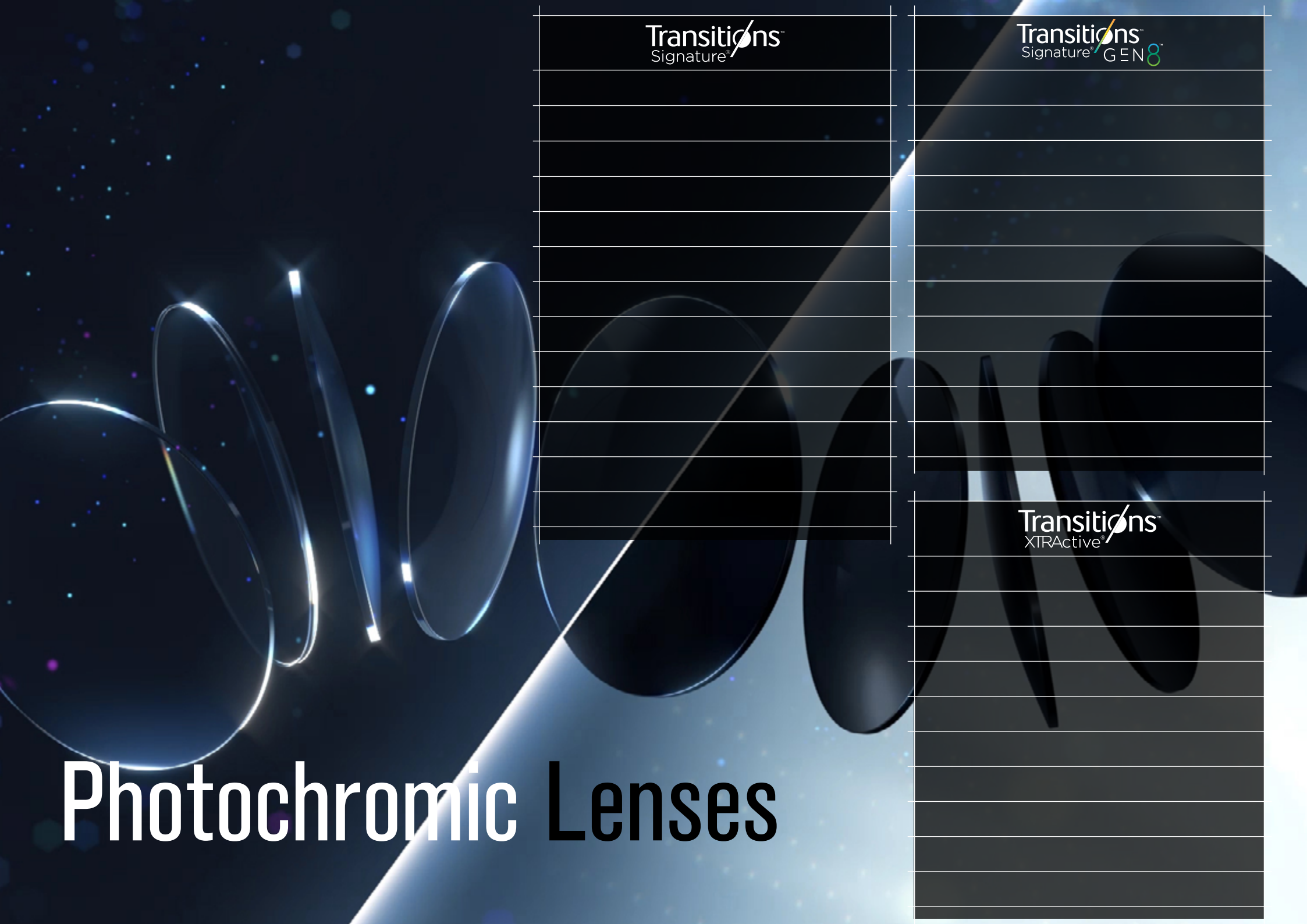
DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE THICKNESS	CENTER THICKNESS	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
74	1.5	1.79	6.0	15.7	10.3	1.06	296.089	1.00 - 3.50	-5.25 to -10.00
74	3.00	3.02	6.0	13.4	9.5	1.79	175.497	1.00 - 3.50	-2.25 to -5.00
74	5.00	5.04	6.0	13.4	12.3	3.02	105.159	1.00 - 3.50	+2.00 to -2.00
74	7.00	7.56	6.0	9.7	12.8	4.61	70.016	1.00 - 3.50	+2.25 to +7.00

Transitions™  
Signature

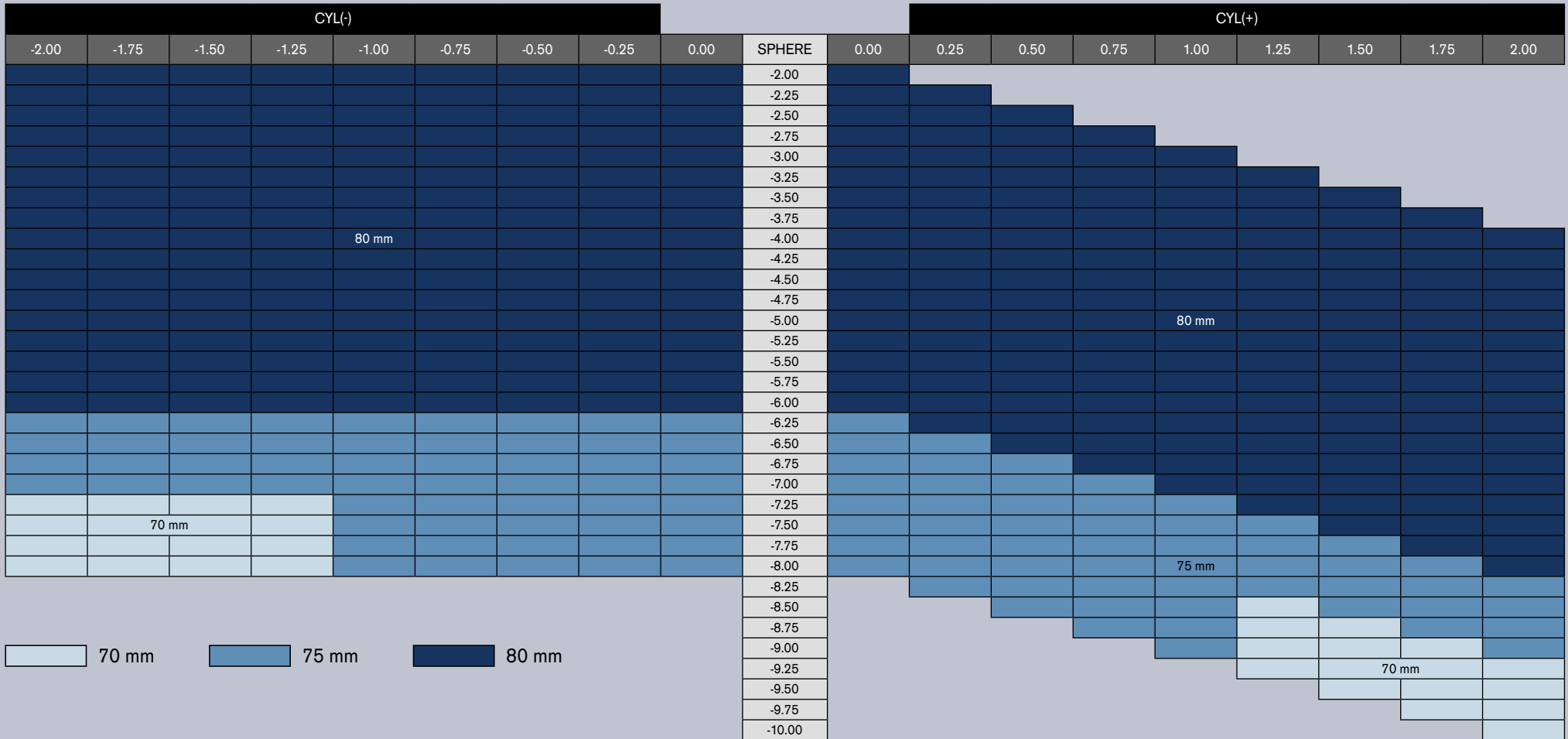
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XTRActive

# Photochromic Lenses



MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION
MR-7	PHOTOCHROMIC	SINGLE ASPHERIC	1.67	31	1.30	GRAY BROWN	100 %	94% NOT ACTIVATED 11% ACTIVATED GRAY 15% ACTIVATED BROWN	6% NOT ACTIVATED 89% ACTIVATED GRAY 85% ACTIVATED BROWN



MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>SPHERICAL</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>AMETHYST (purple) SAPPHIRE (blue)</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 12% ACTIVATED</b>	<b>-11.00 TO +12.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
76	2.00	1,96	2.03	16.0	15.9	1.18	270.10	-11.00 to +12.00
76	3.50	3.48	2.03	15.9	18.0	2.06	152,45	
76	4.25	4.25	4.22	14.0	14.0	2.53	124.70	
76	5,25	5.19	4.22	9.6	11.1	3.11	102.03	
76	6.25	6.19	6.33	12.9	12.8	3.73	85.68	
76	7.25	7.22	6.33	11.2	12.8	4.39	73.45	
72	8.75	8.73	6.33	8.6	12.0	5.41	60.69	
72	10.50	10.31	6.33	9.1	15.3	6.51	51.41	



MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
TRIVEX <sup>®</sup>	PHOTOCHROMIC	ASPHERIC	1.53	45	1.1	GRAY BROWN	100 %	88% NOT ACTIVATED 11% ACTIVATED GRAY 15% ACTIVATED BROWN	12% NOT ACTIVATED 89% ACTIVATED GRAY 85% ACTIVATED BROWN	-9.00 TO +6.00

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
76	0.50	0.62	6.25	14.5	7.0	0.37	854.84	-9.00 to -6.50
76	1.25	1.37	4.25	10.0	7.0	0.81	386.86	-6.25 to -4.25
76	2.25	2.37	4.25	10.0	7.5	1.40	223.63	-4.00 to -2.25
76	3.00	3.09	4.25	7.5	6.5	1.83	171.52	-2.00 to 0.00
76	3.50	3.50	4.25	7.5	6.5	2.08	151.43	+0.25 to +2.00
76	4.25	4.17	4.25	7.5	7.5	2.48	127.10	+2.25 to +3.00
76	5.00	4.94	4.25	7.5	8.5	2.95	107.29	+3.25 to +4.00
76	6.00	5.92	6.25	7.5	6.5	3.56	89.53	+4.25 to +5.00
76	7.00	6.98	6.25	7.5	8.0	4.23	75.93	+5.25 to +6.00

# Transitions™ FT28 Hard Resin High Addition (hardcoated)

YoungerOptics **Technical Specifications 2020**

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 11% ACTIVATED GRAY 15% ACTIVATED BROWN</b>	<b>12% NOT ACTIVATED 89% ACTIVATED GRAY 85% ACTIVATED BROWN</b>	<b>-6.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
78	4.25	4.26	6.25	14.5	11.5	6	5	2.54	124.41	3.25-4.00	-2.25 to -5.00
78	6.25	6.30	6.25	9.5	9.5	6	5	3.80	84.13	3.25-4.00	+2.00 to -2.00
78	8.25	8.30	6.25	9.0	12.5	6	5	5.10	63.86	3.25-4.00	+2.25 to +6.00

# Transitions™ FT28 Trilogy® (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	ADD RANGE
<b>TRIVEX®</b>	<b>PHOTOCHROMIC</b>	<b>1.53</b>	<b>45</b>	<b>1.1</b>	<b>GRAY, BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 11% ACTIVATED GRAY</b>	<b>12% NOT ACTIVATED 89% ACTIVATED GRAY</b>	<b>-9.00 TO +7.00</b>	<b>1.00 - 3.50 IN 0.25 STEPS</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG DROP	SEG INSET	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
74	2.25	2.31	4.25	14.0	12.5	5.0	6.0	1.35	229.44	1.00-3.50	-5.25 to -9.00
74	4.25	4.33	6.25	14.5	12.0	5.0	6.0	2.58	122.40	1.00-3.50	-2.25 to -5.00
74	6.25	6.34	6.25	8.0	8.0	5.0	6.0	3.83	83.46	1.00-3.50	+2.25 to -2.00
74	8.25	8.36	6.25	8.5	11.5	5.0	6.0	5.15	63.25	1.00-3.50	+2.50 to +7.00

Transitions<sup>™</sup> Signature<sup>®</sup> FT28 Polycarbonate Composite\* (hardcoated)

YoungerOptics Technical Specifications 2020

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
POLYCARBONATE	PHOTOCHROMIC	SPHERICAL	1.586	32	1.21	GRAY BROWN	100 %	88% NOT ACTIVATED 11% ACTIVATED GRAY 15% ACTIVATED BROWN	12% NOT ACTIVATED 89% ACTIVATED GRAY 85% ACTIVATED BROWN	-9.00 TO +7.00

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG DROP	SEG INSET	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
75	2.25	2.17	4.25	13.40	11.10	5.00	6.00	1.28	244.24	1.00-3.50	-9.00 TO +7.00
75	4.25	4.20	6.25	13.70	11.80	5.00	6.00	2.50	126.19	1.00-3.50	
75	6.25	6.23	6.25	9.70	10.90	5.00	6.00	3.76	85.07	1.00-3.50	
75	8.25	8.23	9.50	12.90	11.30	5.00	6.00	5.05	64.40	1.00-3.50	

\* THIS IS A POLYCARBONATE COMPOSITE LENS THAT INCORPORATES A THIN PHOTOCHROMIC FRONT SURFACE BIFOCAL LAYER MADE OF TRIVEX<sup>®</sup> MATERIAL.

Transitions<sup>™</sup> Signature<sup>®</sup> 1.50 FT35 Hard Resin (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 11% ACTIVATED GRAY 15% ACTIVATED BROWN</b>	<b>12% NOT ACTIVATED 89% ACTIVATED GRAY 85% ACTIVATED BROWN</b>	<b>-11.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SEG AT 50	RADIUS	ADD RANGE	RX RANGE
78	4.25	4.23	6.25	14.5	11.5	6	5	2.52	125.30	0.75 - 4.00	-5.00 to +6.00
78	6.25	6.25	6.25	9.5	9.5	6	5	3.77	84.80	0.75 - 4.00	
78	8.25	8.28	6.25	9.5	13.0	6	5	5.08	64.01	0.75 - 4.00	

Transitions<sup>™</sup> Signature<sup>®</sup> 1.50 FT45 Hard Resin (uncoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 11% ACTIVATED GRAY 15% ACTIVATED BROWN</b>	<b>12% NOT ACTIVATED 89% ACTIVATED GRAY 85% ACTIVATED BROWN</b>	<b>-5.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
78	4.25	4.26	6.25	14.5	11.5	0	5	2.54	124.41	0.75-3.00	-2.25 to -5.00
78	6.25	6.30	6.25	9.5	9.5	0	5	3.80	84.13	0.75-3.00	+2.00 to -2.00
78	8.25	8.31	6.25	9.0	13.0	0	5	5.10	63.78	0.75-3.00	+2.25 to +6.00

Transitions<sup>™</sup> Signature<sup>®</sup> 1.50 Trifocal 7x28 Hard Resin (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 15% ACTIVATED BROWN</b>	<b>12% NOT ACTIVATED 85% ACTIVATED BROWN</b>	<b>-8.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SEG AT 50	RADIUS	ADD RANGE	RX RANGE
78	4.25	4.26	6.25	14.5	11.5	4	4	2.52	125.30	1.50 - 4.00	-5.00 to +6.00
78	6.25	6.28	6.25	9.5	9.5	4	4	3.77	84.80	1.50 - 4.00	
78	8.25	8.31	6.25	9.5	13.0	4	4	5.08	64.01	1.50 - 4.00	

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED</b> <b>11% ACTIVATED GRAY</b> <b>15% ACTIVATED BROWN</b>	<b>12% NOT ACTIVATED</b> <b>89% ACTIVATED GRAY</b> <b>85% ACTIVATED BROWN</b>	<b>-8.00 TO +6.00</b>	<b>18 mm</b>	<b>2.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MRP DEC.	SEG INSET	FITTING CROSS ABOVE MRP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
78	2.00	2.02	4.25	15.0	12.5	2.5	2.5	2	1.19	262.38	1.00-3.00	-5.25 to -8.00
78	4.50	4.57	6.25	14.5	13.0	2.5	2.5	2	2.73	115.97	1.00-3.00	-2.25 to -5.00
78	6.50	6.33	6.25	9.5	10.0	2.5	2.5	2	3.82	83.73	1.00-3.00	+2.00 to -2.00
78	8.50	8.34	6.25	9.0	14.0	2.5	2.5	2	5.12	63.55	1.00-3.00	+2.25 to +6.00



MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	MINIMUM FITTING HEIGHT	DE-CENTRATION
TRIVEX <sup>®</sup>	PHOTOCHROMIC	1.53	45	1.1	GRAY	100 %	88% NOT ACTIVATED 11% ACTIVATED GRAY	12% NOT ACTIVATED 89% ACTIVATED GRAY	-8.00 TO +6.00	18 mm	2.5 mm

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MRP DEC.	SEG INSET	FITTING CROSS ABOVE MRP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.00	2.09	6.25	14.0	9.0	2.5	2.5	2	1.24	253.59	1.00-3.00	-5.25 to -8.00
76	4.50	4.61	6.25	14.0	13.0	2.5	2.5	2	2.75	114.97	1.00-3.00	-2.25 to -5.00
76	6.50	6.33	6.25	8.0	9.0	2.5	2.5	2	3.82	83.73	1.00-3.00	+2.00 to -2.00
76	8.50	8.30	6.25	8.0	12.0	2.5	2.5	2	5.10	63.86	1.00-3.00	+2.25 to +6.00

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>POLY CARBONATE</b>	<b>PHOTOCHROMIC</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED</b> <b>11% ACTIVATED GRAY</b> <b>15% ACTIVATED BROWN</b>	<b>12% NOT ACTIVATE</b> <b>89% ACTIVATED GRAY</b> <b>85% ACTIVATED BROWN</b>	<b>-8.00 TO +6.00</b>	<b>18 mm</b>	<b>3.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MPR DEC.	SEG INSET	FITTING CROSS ABOVE MPR	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
75	2.00	2.02	4.25	12.0	10.5	3.5	2.5	2	1.19	262.38	1.00-3.00	-5.25 to -9.00
75	4.50	4.32	6.25	12.0	11.5	3.5	2.5	2	2.57	122.69	1.00-3.00	-2.25 to -5.00
75	6.50	6.29	6.25	9.0	12.0	3.5	2.5	2	3.79	84.26	1.00-3.00	+2.25 to -2.00
75	8.50	8.28	9.50	9.5	10.0	3.5	2.5	2	5.08	64.01	1.00-3.00	+2.50 to +7.00

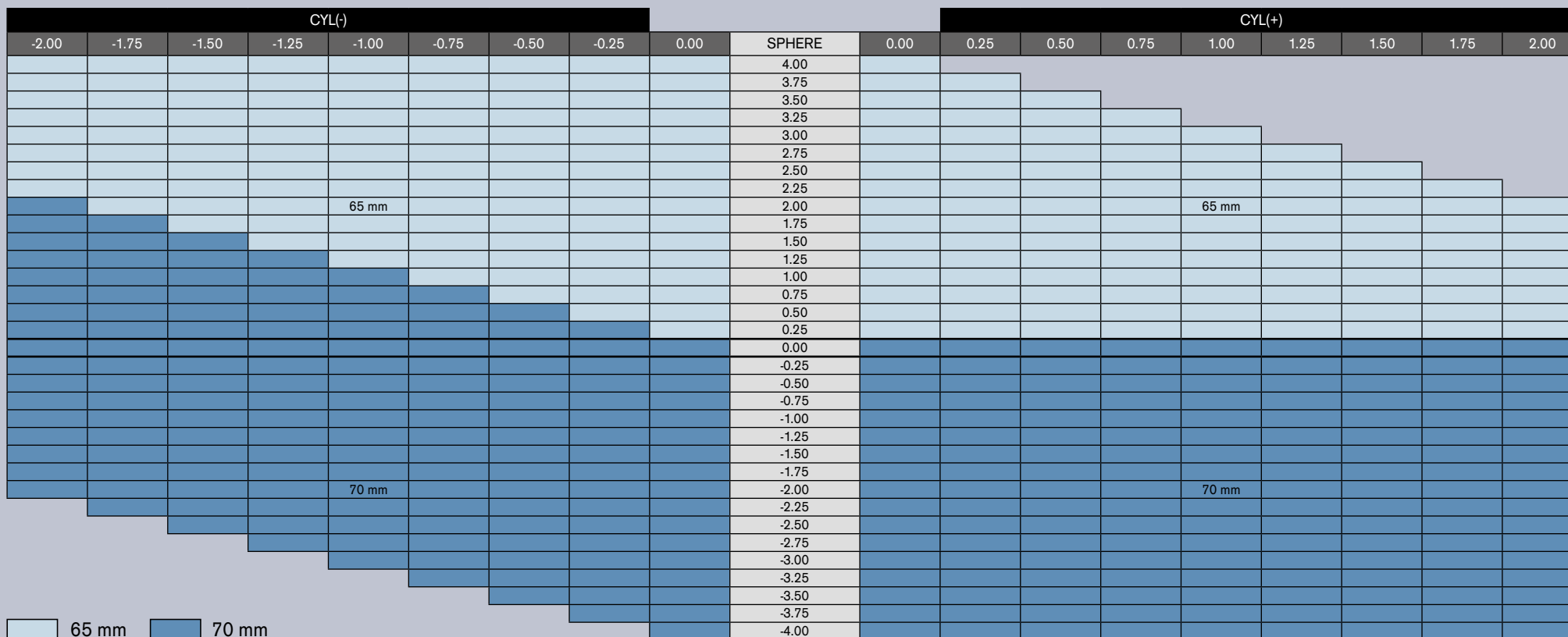
Transitions<sup>™</sup> Signature<sup>®</sup> Image<sup>®</sup> Progressive 1.67 (hardcoated, removable hardcoat)

YoungerOptics Technical Specifications 2020

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	ADD RANGE	MINIMUM FITTING HEIGHT	DE-CENTRATION
MR-10	PHOTOCHROMIC	1.67	31	1.37	GRAY	100 %	88% NOT ACTIVATED 11% ACTIVATED GRAY	12% NOT ACTIVATED 89% ACTIVATED GRAY	-10.00 TO +7.00	1.00 - 3.50 IN 0.25 STEPS	18 mm	2.5 mm

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE THICKNESS	CENTER THICKNESS	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
74	1.5	1.79	6.0	15.7	10.3	1.06	296.089	1.00 - 3.50	-5.25 to -10.00
74	3.00	3.02	6.0	13.4	9.5	1.79	175.497	1.00 - 3.50	-2.25 to 5.00
74	5.00	5.04	6.0	13.4	12.3	3.02	105.159	1.00 - 3.50	+2.00 to -2.00
74	7.00	7.56	6.0	9.7	12.8	4.61	70.016	1.00 - 3.50	+2.25 to +7.00

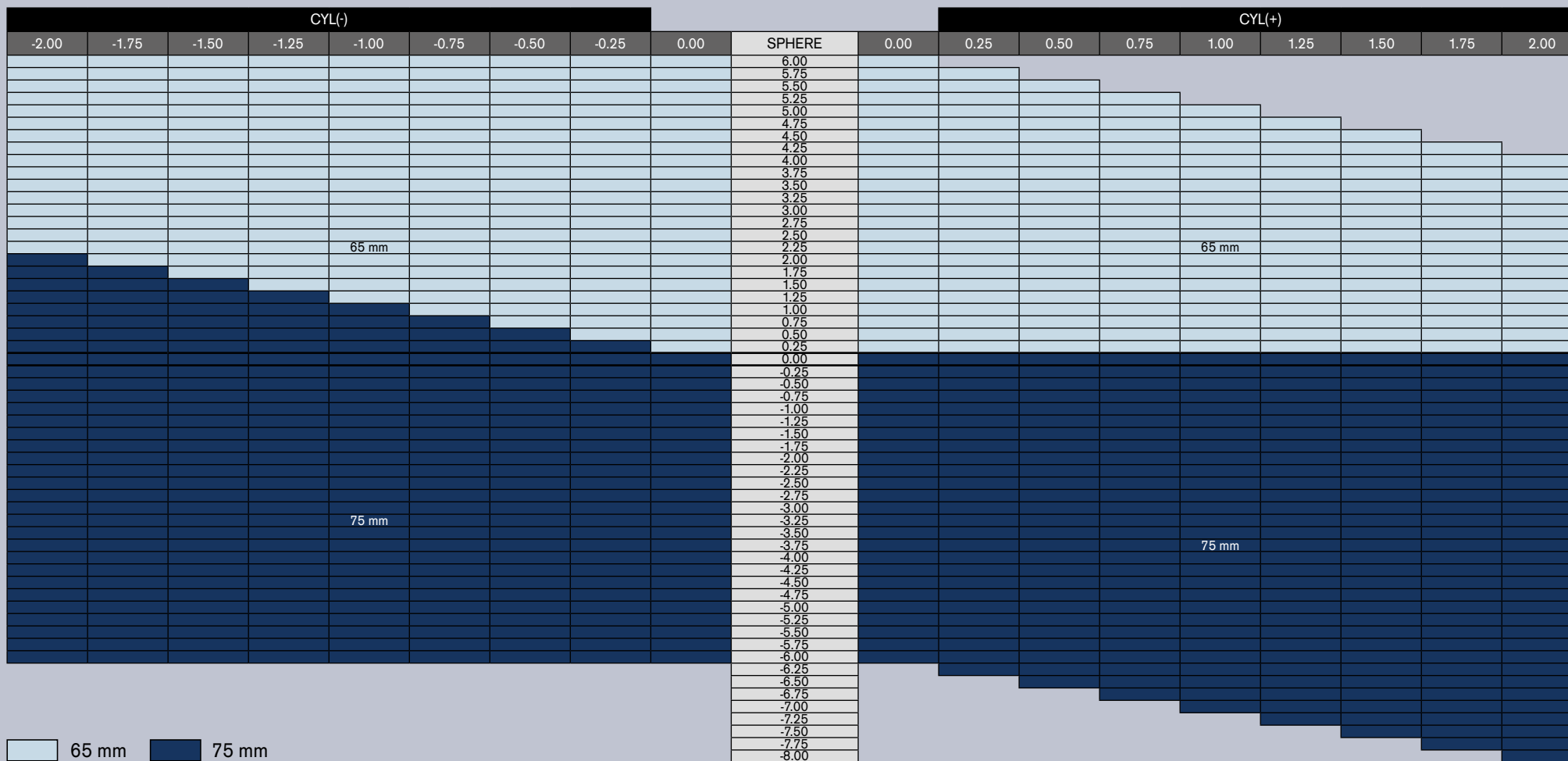
MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>94% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN</b>	<b>6% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN</b>



65 mm 70 mm

\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *
MR-8	PHOTOCHROMIC	1.60	42	1.30	GRAY BROWN	100 %	<b>94% NOT ACTIVATED</b> <b>11.1% ACTIVATED GRAY</b> <b>14.8% ACTIVATED BROWN</b>	<b>6% NOT ACTIVATED</b> <b>88.9% ACTIVATED GRAY</b> <b>85.2% ACTIVATED BROWN</b>



\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>SPHERICAL</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>GRAY BROWN GRAPHITE GREEN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN 15% ACTIVATED GREEN</b>	<b>12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN 85% ACTIVATED GREEN</b>	<b>-11.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
72	0.50	0.44	4.00	13.5	9.0	0.26	1217.07	-8.25 to -11.00
72	2.25	2.09	4.00	11.4	9.0	1.24	253.30	-5.25 to -8.00
72	4.25	4.29	4.00	8.1	8.5	2.56	123.51	-2.25 to -5.00
72	5.25	5.25	6.00	9.5	8.5	3.14	101.01	+1.00 to -3.00
72	6.25	6.20	6.00	8.2	8.5	3.74	85.45	+2.00 to -2.00
72	8.25	8.26	6.00	6.0	9.4	5.07	64.14	+2.25 to +6.00

\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>SPHERICAL</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>GRAY BROWN GRAPHITE GREEN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN 15% ACTIVATED GREEN</b>	<b>12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN 85% ACTIVATED GREEN</b>	<b>-10.00 TO +8.50</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
72	0.50	0.42	4.22	15.40	10.50	0.25	1261.90	-10 TO +8.50
76	2.00	1.96	2.03	16.8	16.7	1.16	270.10	
76	3.50	3.48	2.03	16.7	18.8	2.06	152.45	
76	4.25	4.25	4.22	14.8	14.8	2.53	124.70	
76	5.25	5.19	4.22	10.3	11.9	3.11	102.03	
76	6.25	6.19	6.33	13.7	13.6	3.73	85.68	
76	7.25	7.22	6.33	12.0	13.6	4.39	73.45	
72	8.75	8.73	6.33	8.6	12.0	5.39	60.69	
72	10.50	10.31	6.33	9.1	15.3	6.49	51.41	

\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLORS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
TRIVEX <sup>®</sup>	PHOTOCHROMIC	SPHERICAL	1.53	45	1.1	GRAY BROWN	100 %	88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN	12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN	-8.75 TO +7.50

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
76	1.25	1.25	4.25	14.4	10.8	0.74	424.00	-8.75D to +7.50D
76	2.25	2.26	4.25	14.6	12.3	1.34	234.51	
76	3.25	3.26	4.25	14.3	13.4	1.93	162.58	
76	4.25	4.23	4.25	14.5	14.8	2.52	125.30	
76	5.25	5.33	6.25	7.7	6.8	3.19	99.44	
76	6.25	6.24	6.25	7.4	8.1	3.76	84.94	
76	7.25	7.31	6.25	7.5	9.8	4.44	72.50	
76	8.25	8.27	6.25	7.3	11.3	5.08	64.09	

\* ACTIVATED AT 23°C



MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
POLYCARBONATE	PHOTOCHROMIC	SPHERICAL	1.586	32	1.21	GRAY BROWN	100 %	88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN	12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN	-10.00 TO +6.00

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
75	0.50	0.54	4.25	13.5	8.5	0.32	981.48	-8.00 to -10.00
75	1.25	1.26	4.25	13.2	11.0	0.74	420.64	-7.75 to -6.25
75	2.25	2.30	4.25	12.0	9.5	1.36	230.44	-4.50 to -6.00
75	3.25	3.26	4.25	12.6	11.3	1.93	162.58	-3.25 to -4.25
75	4.25	4.27	6.25	12.0	10.4	2.54	124.12	-2.00 to -3.00
75	5.25	5.26	6.25	12.5	11.7	3.15	100.76	0.00 to -1.75
75	6.25	6.25	6.25	8.2	9.0	3.77	84.80	+0.25 to +1.50
75	7.25	7.27	9.50	11.9	9.1	4.42	72.91	+1.75 to +3.50
75	8.25	8.26	9.50	11.0	9.5	5.07	64.17	+3.75 to +6.00

\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
MR-8	PHOTOCHROMIC	SPHERICAL	1.60	42	1.30	GRAY BROWN GRAPHITE GREEN	100 %	88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN 15% ACTIVATED GREEN	12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN 85% ACTIVATED GREEN	-15.00 TO +13.00

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
73	0.50	0.58	6.38	15.1	7.4	0.34	913.793	-15.00 to -11.00
73	1.25	0.95	6.38	14.2	7.0	0.56	557.895	-10.75 to -7.50
73	2.25	1.82	6.38	15.1	9.0	1.08	291.209	-7.25 to -4.50
73	3.25	3.05	6.38	12.6	8.0	1.81	173.770	-4.25 to -1.50
73	4.25	3.98	5.68	12.0	9.6	2.37	133.166	-1.25 to +1.25
73	5.25	4.96	5.68	10.0	9.0	2.97	106.855	+1.50 to +3.00
73	6.25	5.88	5.68	8.9	9.2	3.54	90.136	+3.25 to +5.00
73	7.25	6.91	5.68	7.7	9.5	4.19	76.70	+5.25 to +6.75
73	8.25	7.88	5.68	8.2	11.5	4.82	67.259	+7.00 to +8.75
70	9.25	9.02	8.38	8.5	10.0	5.58	58.760	+9.00 to +11.00
70	10.25	10.03	8.38	9.5	12.5	6.29	52.840	+11.25 to +13.00

\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
MR-10	PHOTOCHROMIC	SPHERICAL	1.67	31	1.37	GRAY BROWN GRAPHITE GREEN	100 %	88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN 15% ACTIVATED GREEN	12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN 85% ACTIVATED GREEN	-12.00 TO +11.00

DIAMETER	NOMINAL CURVE	TRUE CURVE		RADIUS FRONT	*SAG AT 50 (mm)	THICKNESS (mm)		RX RANGE
		FRONT	BACK		FRONT	CENTER	EDGE	
74	1.00	1.07	6.11	495.33	0.63	9.0	16.0	-12.00 to -8.00
74	2.00	1.83	6.11	289.62	1.08	10.3	16.0	-7.75 to -4.00
74	3.00	3.12	6.11	169.87	1.84	9.5	13.5	-3.75 to -2.50
74	4.00	4.11	6.11	128.95	2.45	10.5	13.5	-2.25 to -0.25
74	5.00	5.10	6.11	103.92	3.05	10.5	12	0.00 to +2.25
74	6.00	6.10	6.11	86.89	3.67	10.5	10.5	+2.50 to +4.00
74	7.00	7.59	6.11	69.83	4.63	10.7	8.5	+4.25 to +7.00
70	9.00	9.04	6.93	58.63	5.60	11.5	8.4	+7.25 to +8.75
65	12.00	11.96	8.09	44.31	7.73	10.5	5.0	+9.00 to +11.00

\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
MR-174	PHOTOCHROMIC	SPHERICAL	1.74	33	1.47	GRAY BROWN	100 %	88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN	12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN	-15.00 TO +12.00

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
65	0.50	0.27	9.4	18.5	8.5	0.16	1942.10	-15.00 to -13.00
65	1.00	1.04	9.4	16.8	7.5	0.61	511.81	-12.75 to -7.25
70	1.50	1.57	8.2	15.5	7.0	0.93	338.07	-7.00 to -3.50
75	2.50	2.47	6.9	12.5	6.1	1.46	214.87	-3.25 to 0.00
75	3.50	3.54	4.8	8.0	6.3	2.10	149.80	0.25 to +1.75
70	5.00	4.78	5.6	7.0	6.0	2.86	110.83	+2.00 to +3.25
70	6.00	6.12	6.2	7.1	7.0	3.68	86.60	+3.50 to +4.25
70	7.00	7.31	6.9	6.9	7.5	4.45	72.47	+4.50 to +6.25
65	8.00	8.32	6.7	6.6	8.6	5.11	63.70	+6.50 to +8.00
65	9.00	8.95	6.7	6.6	9.5	5.53	59.24	+8.25 to +9.50
65	10.00	9.70	6.2	6.5	10.7	6.06	54.63	+9.75 to 12.00

\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN</b>	<b>12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN</b>	<b>-11.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	0.50	0.44	4.00	16.0	10.6	6	6	0.26	1204.55	1.00-3.00	-8.25 to -11.00
76	2.25	2.09	4.00	13.5	10.6	6	6	1.24	253.59	1.00-3.00	-6.25 to 8.00
76	4.25	4.30	4.00	10.5	10.6	6	6	2.56	123.26	1.00-3.00	-3.25 to -6.00
76	5.25	5.26	6.00	10.0	8.7	6	6	3.00	100.76	1.00-3.00	-3.25 to 0.00
76	6.25	6.21	6.00	9.0	8.7	6	6	3.74	85.35	1.00-3.00	0.00 to +2.00
76	8.25	8.27	6.00	9.0	12.3	6	6	5.08	64.09	1.00-3.00	+2.25 to +6.00

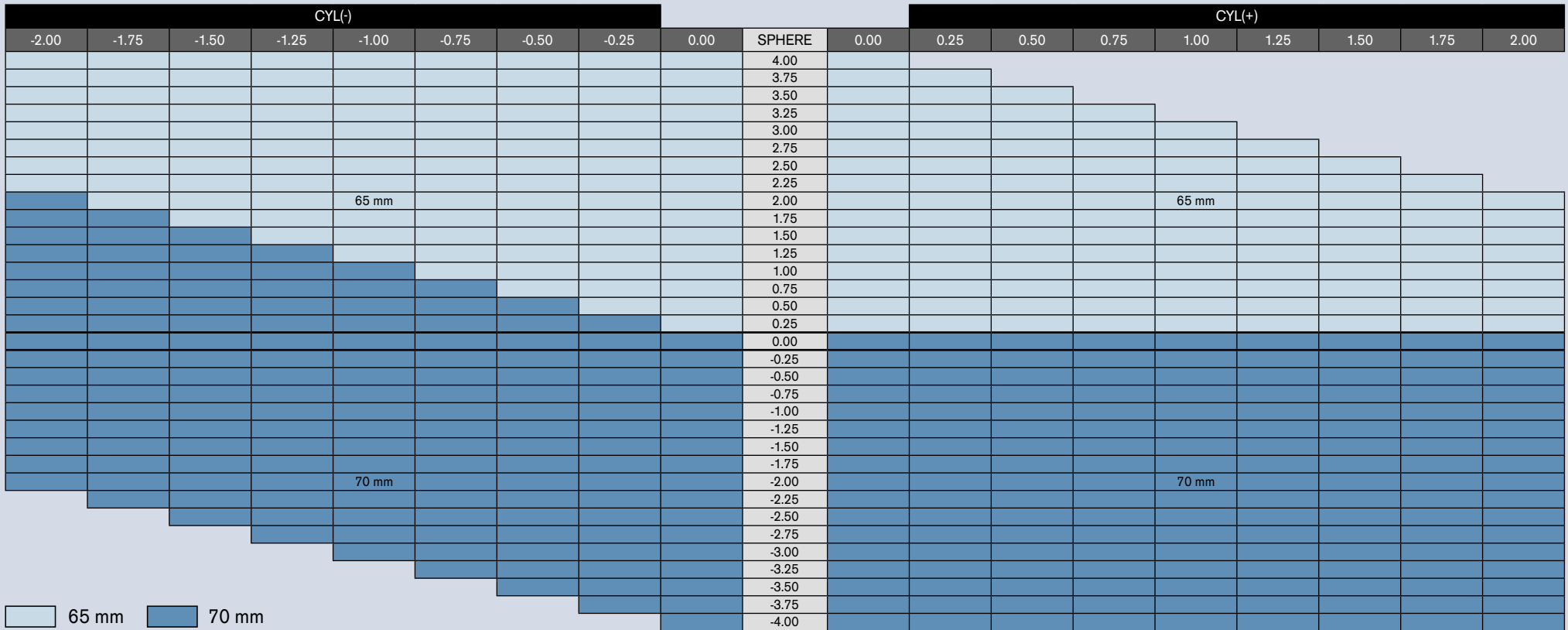
\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COL-OURS	UV ABSORPTION	TRANSMITTANCE *	ABSORPTION *	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 11.1% ACTIVATED GRAY 14.8% ACTIVATED BROWN</b>	<b>12% NOT ACTIVATED 88.9% ACTIVATED GRAY 85.2% ACTIVATED BROWN</b>	<b>-8.00 TO +6.00</b>

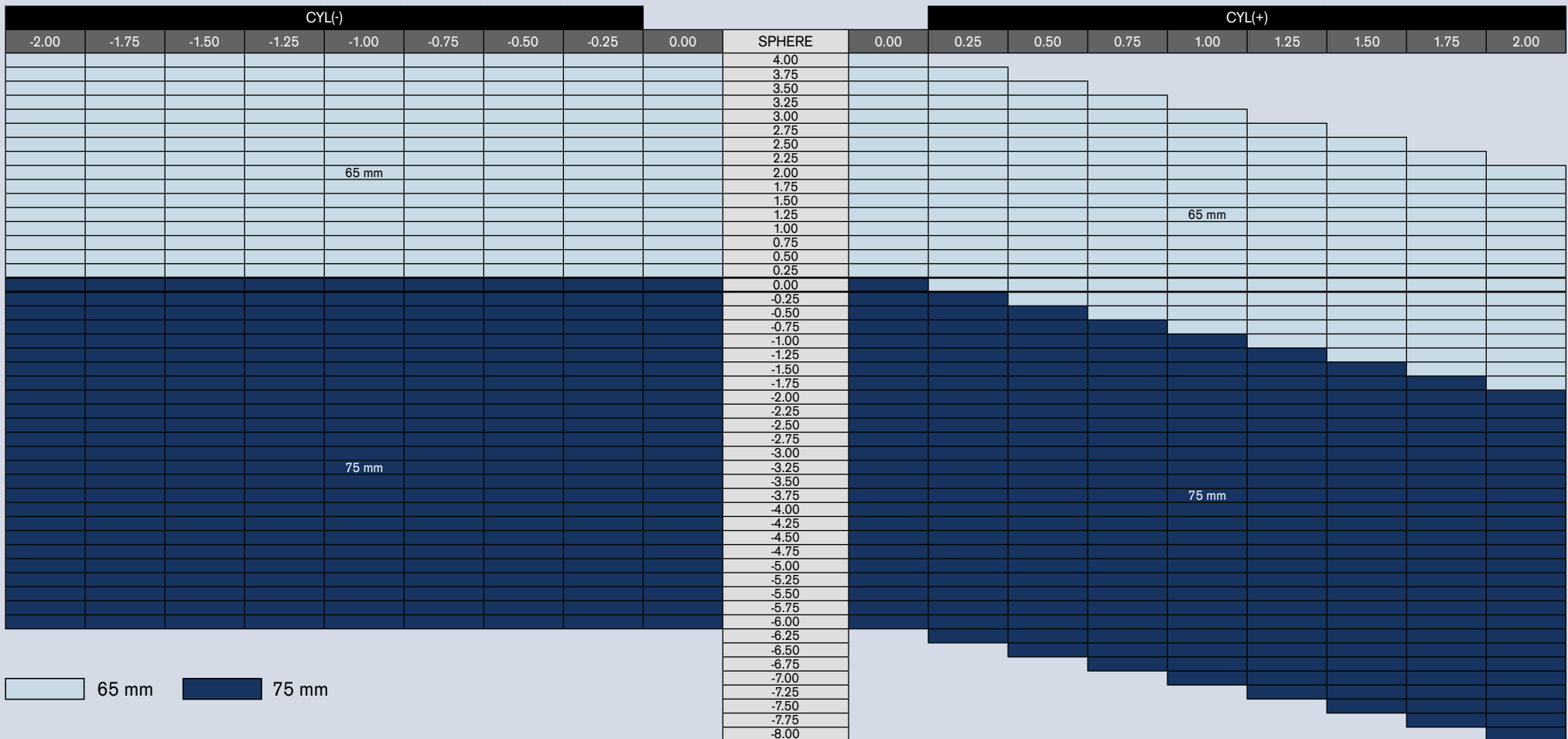
DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	RADIUS	ADD RANGE	RX RANGE
70	2.50	2.13	3.00	15.50	14.8	6	6	248.8 mm	1.00-3.50	-6.25 to -8.00
70	4.00	3.67	3.00	13.00	13.2	6	6	144.4 mm	1.00-3.50	-3.25 to -6.00
70	5.00	4.77	6.00	12.50	10.3	6	6	111.1 mm	1.00-3.50	-3.25 to Plano
70	6.00	5.92	6.00	7.50	7.5	6	6	89.5 mm	1.00-3.50	Plano to +2.00
70	7.00	6.97	6.00	7.50	9.0	6	6	76.0 mm	1.00-3.50	+4.00 to +2.25
70	8.00	8.00	6.00	7.50	10.6	6	6	66.2 mm	1.00-3.50	+6.00 to +4.25

\* ACTIVATED AT 23°C

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
HARD RESIN	PHOTOCHROMIC	SPHERICAL	1.50	56	1.27	GRAY BROWN	100 %	83% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION	-4.00 TO +4.00



MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	ABSORPTION
MR-8	PHOTOCHROMIC	SINGLE ASPHERIC	1.60	42	1.30	GRAY	100 %	94% NOT ACTIVATED 11% ACTIVATED GRAY	6% NOT ACTIVATED 89% ACTIVATED GRAY





MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>SPHERICAL</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>83% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION</b>	<b>-11.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
76	0.50	0.44	4.00	16.0	10.6	0.26	1204.55	-8.25 to -11.00
76	2.25	2.09	4.00	13.6	10.6	1.24	253.59	-5.25 to -8.00
76	4.25	4.30	4.00	10.5	10.6	2.56	123.26	-2.25 to -5.00
76	5.25	5.26	6.00	10.5	8.7	3.15	100.76	+1.00 to -3.00
76	6.25	6.21	6.00	9.0	8.7	3.74	85.35	+2.00 to -2.00
76	8.25	8.27	6.00	9.0	12.3	5.08	64.09	+2.25 to +6.00

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>SPHERICAL</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAPHITE GREEN</b>	<b>100 %</b>	<b>88% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION</b>	<b>-11.00 TO +12.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
77	0.50	0.44	4.00	15.80	10.60	0.26	1217.07	-11.00 to +12.00
77	2.00	1.96	2.03	16.8	16.7	1.18	270.10	
77	3.50	3.48	2.03	16.7	18.8	2.06	152.45	
77	4.25	4.25	4.22	14.8	14.8	2.53	124.70	
77	5.25	5.19	4.22	10.3	11.9	3.11	102.03	
77	6.25	6.19	6.33	13.7	13.6	3.73	85.68	
77	7.25	7.22	6.33	12.0	13.6	4.39	73.45	
73	8.75	8.73	6.33	8.4	12.0	5.41	60.69	
69	10.50	10.31	6.33	9.5	14.8	6.51	51.41	

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
TRIVEX®	PHOTOCHROMIC	SPHERICAL	1.53	45	1.1	GRAY BROWN	100 %	83% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION	-8.75 TO +7.50

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
76	1.25	1.25	4.25	14.4	10.8	0.74	424.00	-8.75 to +7.50
76	2.25	2.26	4.25	14.6	12.3	1.34	234.51	
76	3.25	3.26	4.25	14.3	13.4	1.93	162.58	
76	4.25	4.23	4.25	14.5	14.8	2.52	125.30	
76	5.25	5.33	6.25	7.7	6.8	3.19	99.44	
76	6.25	6.24	6.25	7.4	8.1	3.76	84.94	
76	7.25	7.31	6.25	7.5	9.8	4.44	72.50	
76	8.25	8.27	6.25	7.3	11.3	5.08	64.09	

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
<b>POLYCARBONATE</b>	<b>PHOTOCHROMIC</b>	<b>SPHERICAL</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>83% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION</b>	<b>-10.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
75	0.50	0.54	4.25	13.5	8.5	0.32	981.48	-8.00 TO -10.00
75	1.25	1.26	4.25	13.2	11.0	0.74	420.64	-7.75 TO -6.25
75	2.25	2.30	4.25	12.0	9.5	1.36	230.44	-4.50 TO -6.00
75	3.25	3.26	4.25	12.6	11.3	1.93	162.58	-3.25 TO -4.25
75	4.25	4.27	6.25	12.0	10.4	2.54	124.12	-2.00 TO -3.00
75	5.25	5.26	6.25	12.5	11.7	3.15	100.76	0.00 TO -1.75
75	6.25	6.25	6.25	8.2	9.0	3.77	84.80	+0.25 TO +1.50
75	7.25	7.27	9.50	11.9	9.1	4.42	72.91	+1.75 TO +3.50
75	8.25	8.26	9.50	11.0	9.5	5.07	64.17	+3.75 TO +6.00

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
MR-8	PHOTOCHROMIC	SPHERICAL	1.60	42	1.30	GRAY BROWN	100 %	83% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION	-10.75 TO +8.75

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
73	1.25	0.95	6.38	14.2	7.0	0.56	557.895	-10.75 to -7.50
73	2.25	1.82	6.38	15.1	9.0	1.08	291.209	-7.25 to -4.50
73	3.25	3.05	6.38	12.6	8.0	1.81	173.770	-4.25 to -1.50
73	4.25	3.98	5.68	12.0	9.6	2.37	133.166	-1.25 to +1.25
73	5.25	5.01	5.68	10.0	9.0	3.00	105.788	+1.50 to +3.00
73	6.25	5.93	5.68	8.9	9.2	3.57	89.376	+3.25 to +5.00
73	7.25	6.97	5.68	7.7	9.5	4.23	76.040	+5.25 to +6.75
73	8.25	7.93	5.68	8.2	11.5	4.85	66.835	+7.00 to +8.75

Transitions™ XTRActive® SFSV 1.67 (uncoated & hardcoated)

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
MR-10	PHOTOCHROMIC	SPHERICAL	1.67	31	1.37	GRAY BROWN	100 %	83% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION	-12.00 TO +11.00

DIAMETER	NOMINAL CURVE	TRUE CURVE		RADIUS FRONT	*SAG AT 50 (mm)		THICKNESS (mm)		RX RANGE
		FRONT	BACK		FRONT	BACK	CENTER	EDGE	
74	1.00	1.00	6.11	530.000	0.59	3.68	9.0	16.0	-12.00 to -8.00
74	2.00	1.78	6.11	297.753	1.05	3.68	10.3	16.0	-7.75 to -4.00
74	3.00	3.10	6.11	170.968	1.84	3.68	9.5	13.5	-3.75 to -2.50
74	4.00	4.10	6.11	129.270	2.44	3.68	11.2	14.1	-2.25 to -0.25
74	5.00	5.10	6.11	103.922	3.05	3.68	10.0	11.3	0.00 to +2.25
74	6.00	6.08	6.11	87.17	3.66	3.68	10.0	10.0	+2.50 to +4.00
74	7.00	7.58	6.11	69.921	4.62	3.68	10.0	8.0	+4.25 to +7.00
70	9.00	9.04	6.93	58.628	5.60	3.68	11.5	8.4	+7.25 to +8.75
65	12.00	11.97	8.09	44.28	7.73	3.68	10.7	5.3	+9.00 to +11.00

Transitions™ XTRActive® Hard Resin Flat Top 28 (uncoated)

YoungerOptics Technical Specifications 2020

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>SPHERICAL</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>83% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION</b>	<b>-8.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.25	2.09	4.00	13.5	10.6	6	6	1.24	253.59	1.00-3.00	-6.25 to -8.00
76	4.25	4.30	4.00	10.5	10.6	6	6	2.56	123.26	1.00-3.00	-3.25 to -6.00
76	6.25	6.21	6.00	9.0	8.7	6	6	3.74	85.35	1.00-3.00	0.00 to +2.00
76	8.25	8.27	6.00	9.0	12.3	6	6	5.08	64.09	1.00-3.00	+2.25 to +6.00

Transitions™ XTRActive® Image® Progressive Hard Resin (hardcoated)

YoungerOptics Technical Specifications 2020

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>HARD RESIN</b>	<b>PHOTO-CHROMIC</b>	<b>SPHERICAL</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY</b>	<b>100 %</b>	<b>83% NOT ACTIVATED 50% ACTIVATED IN CAR 10% FULL ACTIVATION</b>	<b>-8.00 TO +6.00</b>	<b>18 mm</b>	<b>2.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MRP DEC.	SEG INSET	FITTING CROSS ABOVE MRP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
78	2.00	2.02	4.25	15.0	12.5	2.5	2.5	2	1.19	262.38	1.00-3.00	-5.25 to -8.00
78	4.50	4.57	6.25	14.5	13.0	2.5	2.5	2	2.73	115.97	1.00-3.00	-2.25 to -5.00
78	6.50	6.33	6.25	9.5	10.0	2.5	2.5	2	3.82	83.73	1.00-3.00	+2.00 to -2.00
78	8.50	8.34	6.25	9.0	14.0	2.5	2.5	2	5.12	63.55	1.00-3.00	+2.25 to +6.00



Acclimates™

Variable Tint/Photochromic Lens

Acclimates™

Variable Tint/Photochromic Lens

Photochromic Lenses

# Acclimates™ SFSV Hard Resin (uncoated & hardcoated)

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC</b>	<b>SPHERICAL</b>	<b>1.50</b>	<b>56</b>	<b>1.27</b>	<b>GRAY BROWN</b>	<b>100 %</b>	<b>-11.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
76	0.50	0.44	4.00	16.0	10.6	0.26	1204.55	-8.25 to -11.00
76	2.25	2.09	4.00	13.6	10.6	1.24	253.59	-5.25 to -8.00
76	4.25	4.30	4.00	10.5	10.6	2.56	123.26	-2.25 to -5.00
76	5.25	5.26	6.00	10.5	8.7	3.15	100.76	+1.00 to -3.00
76	6.25	6.21	6.00	9.0	8.7	3.74	85.35	+2.00 to -2.00
76	8.25	8.27	6.00	9.0	12.3	5.08	64.09	+2.25 to +6.00

**NUPOLAR<sup>®</sup>**

*polarized lenses*



# Polarized Lenses

**NUPOLAR<sup>®</sup>**

**NUPOLAR<sup>®</sup>**

*infinite grey*

# NuPolar® Finished plano Hard Resin (uncoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	DIAMETER	NOMINAL CURVE	THICKNESS
<b>HARD RESIN</b>	<b>POLARIZED</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>GRAY 1 - 65 % GRAY 3 - 84 % BROWN - 84 % GREEN 15 - 85 %</b>	<b>100 %</b>	<b>75 mm</b>	<b>6.25</b>	<b>2,2 mm</b>

# NuPolar® 1.53 Finished plano Trilogy® (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	DIAMETER	NOMINAL CURVE	THICKNESS
<b>TRIVEX</b>	<b>POLARIZED</b>	<b>1.53</b>	<b>45</b>	<b>1.1</b>	<b>GRAY 3 - 85 % BROWN - 85 %</b>	<b>100 %</b>	<b>75 mm</b>	<b>6.25</b>	<b>2,2 mm</b>

# NuPolar® SFSV Hard Resin (uncoated & hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>POLARIZED</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>GRAY 1* - 65 % GRAY 3 - 84 % BROWN - 84 % GREEN 15 - 85 %</b>	<b>100 %</b>	<b>-8.50 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
76	1.25	1.23	4.25	13.0	9.2	0.73	430.64	-5.25 to -8.00
76	2.25	2.25	4.25	13.0	10.5	1.33	235.56	-4.25 to -5.00
76	3.25	3.24	4.25	12.7	10.9	1.92	163.58	-3.00 to -4.00
76	4.25	4.21	4.25	13.0	13.0	2.51	125.89	-2.00 to -2.75
76	5.25	5.24	6.25	8.4	7.5	3.14	101.15	-1.25 to -1.75
76	6.25	6.28	6.25	9.5	9.0	3.79	84.39	+2.00 to -1.00
76	7.25	7.25	6.25	8.4	10.5	4.41	73.10	+2.25 to +4.00
76	8.25	8.27	6.25	9.5	13.0	5.08	64.09	+4.25 to +6.00

\* GRAY 1 IS NOT AVAILABLE IN ODD BASES

PHYSICAL DIAMETER	DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	CENTER	EDGE	SAG AT 50 (mm)	RADIUS	RX RANGE
82.0	80.0	4.25	4.20	4.25	13.80	14.20	2.50	126.74	-4.00 to +6.00
82.0	80.0	6.25	6.23	6.25	10.32	10.47	3.76	85.00	
82.0	80.0	8.25	8.23	6.25	14.70	11.16	5.04	64.50	

AVAILABLE IN GREY 3, BROWN

# NuPolar® SFSV Hard Resin Mirrors (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>POLARIZED</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>GRAY/BLUE MIRROR - 90%</b> <b>GRAY/SILVER MIRROR - 89%</b> <b>BROWN/GOLD MIRROR - 89%</b>	<b>100 %</b>	<b>-7.00 TO +5.00D</b>

PHYSICAL DIAMETER	EFFECTIVE DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
80	75	2.00	1.88	4.25	12.6	8.6	1.11	283.59	-7.00 to +5.00D
80	75	3.00	3.05	4.50	12.5	10.1	1.81	174.40	
80	75	4.00	4.12	4.50	12.7	11.6	2.45	128.97	
80	75	5.00	5.06	6.25	11.4	8.9	3.03	105.06	
80	75	6.00	6.00	6.25	11.2	10.1	3.61	88.43	
80	75	7.00	7.22	7.25	10.1	9.0	4.39	73.69	
80	75	8.00	8.02	7.25	9.8	10.0	4.91	66.20	

# NuPolar® 1.53 SFSV Trilogy® (uncoated & hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>TRIVEX</b>	<b>POLARIZED</b>	<b>1.53</b>	<b>45</b>	<b>1.1</b>	<b>GRAY 3 - 85 % BROWN - 85 %</b>	<b>100 %</b>	<b>-9.00 TO +7.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
74	2.25	2.26	6.25	10.9	5.6	1.34	234.51	-9.00 to +7.00
74	4.25	4.24	6.25	11.2	8.4	2.53	125.00	
74	6.25	6.25	6.25	8.5	8.6	3.77	84.80	
74	8.25	8.26	6.25	8.7	11.9	5.07	64.17	



# NuPolar® SFSV Poly (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>POLYCARBONATE</b>	<b>POLARIZED</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>GRAY 3 - 83 % BROWN - 78 % GREEN 15 - 85 % COPPER - 80 %</b>	<b>100 %</b>	<b>-9.50 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
76	0.50	0.53	4.25	14.0	8.5	0.31	1000.00	-9.50D to +6.00D
76	1.25	1.26	4.25	14.1	9.6	0.74	420.64	
76	2.25	2.28	4.25	12.8	9.7	1.35	232.46	
76	3.25	3.27	4.25	12.9	11.2	1.94	162.08	
76	4.25	4.28	6.25	13.1	9.8	2.55	123.83	
76	5.25	5.29	6.25	13.0	11.2	3.17	100.17	
76	6.25	6.28	6.25	9.9	9.8	3.79	84.39	
76	7.25	7.28	9.50	13.1	8.4	4.42	72.80	
76	8.25	8.27	9.50	13.0	10.0	5.08	64.08	

**GREEN AND COPPER ARE NOT AVAILABLE IN ODD BASES**

PHYSICAL DIAMETER	DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	CENTER	EDGE	SAG AT 50 (mm)	RADIUS	RX RANGE
82.0	80.0	6.25	6.24	6.25	9.90	9.90	3.79	84.93	-4.00 to +6.00
82.0	80.0	8.25	8.27	9.50	10.10	13.30	5.08	64.08	

**AVAILABLE IN GREY 3, BROWN**

# NuPolar<sup>®</sup> SFSV Poly Gradient (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>POLYCARBONATE</b>	<b>POLARIZED</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>GRAY 85% TOP / GRAY 70% BOTTOM BROWN 80% TOP / GRAY 70% BOTTOM</b>	<b>100 %</b>	<b>-5.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	CENTER	EDGE	SAG AT 50 (mm)	RADIUS	RX RANGE
76	4.25	4.28	6.25	9.80	13.10	2.55	123.832	-5.00 to +6.00
76	6.25	6.28	6.25	9.80	9.90	3.79	84.395	
76	8.25	8.27	9.50	10.00	13.00	5.08	64.087	

# NuPolar® SFSV 1.60 (uncoated & hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>MR-8</b>	<b>POLARIZED</b>	<b>1.60</b>	<b>42</b>	<b>1.30</b>	<b>GRAY 3 - 85 % BROWN - 85 % GREEN 15 - 86 %</b>	<b>100 %</b>	<b>-10.00 TO +8.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE THK	CENTER THK	SAG AT 50	RADIUS	RX RANGE
75	1,25	1,24	6,25	14,3	7,4	0,73	427,42	-10.00 to +8.00
75	2,25	2,24	6,25	14,0	8,4	1,32	236,61	
75	3,25	3,25	6,25	14,1	10,0	1,93	163,08	
75	4,25	4,19	6,25	14,0	11,0	2,50	126,49	
75	5,25	5,28	6,25	14,0	12,7	3,16	100,38	
75	6,25	6,18	6,25	9,5	9,4	3,72	85,76	
75	7,25	7,29	6,25	9,6	11,0	4,43	72,7	
75	8,25	8,21	6,25	9,5	12,7	5,04	64,56	

\* THE RANGE -8.00 TO -10.00 CAN BE ACHIEVED AFTER BLANK IS CRIBBED TO 65 mm DIAMETER

# NuPolar® 1.67 SFSV (uncoated & hardcoated)

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>MR-10</b>	<b>POLARIZED</b>	<b>SPHERICAL</b>	<b>1.67</b>	<b>31</b>	<b>1.37</b>	<b>GRAY 3 - 84 % BROWN - 85 % GREEN 15 - 86 %</b>	<b>100 %</b>	<b>-12.50 TO +9.00</b>

DIAMETER	EFFECTIVE DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
75	72	1.25	1.25	6.25	14.10	7.00	0.74	424.000	-12.50 to -8.00
75	72	2.25	2.25	6.25	14.00	8.30	1.35	235.556	-7.75 to -5.50
75	72	3.25	3.24	6.25	14.10	9.60	1.94	163.580	-5.25 to -4.00
75	72	4.25	4.19	6.25	14.10	10.90	2.51	126.492	-3.75 to -0.50
75	72.5	5.25	5.27	6.25	14.10	12.30	3.18	100.569	-0.25 to +1.50
75	72.5	6.25	6.20	6.25	9.30	9.00	3.74	85.484	+1.75 to +3.00
75	73	7.25	7.27	6.25	9.30	10.80	4.45	72.902	+3.25 to +7.00
75	73	8.25	8.19	6.25	9.30	12.40	5.05	64.713	+7.25 to 9.00

PHYSICAL DIAMETER	DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	CENTER	EDGE	SAG AT 50 (mm)	RADIUS	RX RANGE
82.0	80.0	6.25	6.20	6.25	10.38	10.33	3.75	85.30	-4.00 to +6.00
82.0	80.0	8.25	8.19	6.25	14.93	11.07	5.03	64.60	

**AVAILABLE IN GREY 3, BROWN**

# NuPolar® FT28 Hard Resin (uncoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>POLARIZED</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>GRAY 3 - 84 % BROWN - 84 %</b>	<b>100 %</b>	<b>-8.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.25	2.31	4.25	13.0	10.5	6	5	1.37	229.44	0.75-4.00	-5.25 to -8.00
76	4.25	4.26	6.25	13.0	10.5	6	5	2.54	124.41	0.75-4.00	-2.25 to -5.00
76	6.25	6.28	6.25	9.5	9.0	6	5	3.79	84.39	0.75-4.00	+2.00 to -2.00
76	8.25	8.27	6.25	9.5	13.0	6	5	5.08	64.09	0.75-4.00	+2.25 to +6.00

# NuPolar® FT28 Poly (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>POLYCARBONATE</b>	<b>POLARIZED</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>GRAY 3 - 83 % BROWN - 78 %</b>	<b>100 %</b>	<b>-8.00 TO +6.25</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
75	2.25	2.23	4.25	12.7	9.5	6	5	1.32	237.67	1.00D to 3.00D	-8.00D to 6.25D
75	4.25	4.24	6.25	12.7	9.5	6	5	2.53	125.00	1.00D to 3.00D	
75	6.25	6.28	6.25	9.8	9.7	6	5	3.79	84.40	1.00D to 3.00D	
75	8.25	8.25	9.50	11.9	8.5	6	5	5.07	64.24	1.00D to 3.00D	

# NuPolar® Image® Progressive Hard Resin (uncoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>HARD RESIN</b>	<b>POLARIZED</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>GRAY 3 - 84 % BROWN - 84 %</b>	<b>100 %</b>	<b>-8.00 TO +6.00</b>	<b>18 mm</b>	<b>2.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MRP DEC.	SEGINSET	FITTING CROSS ABOVE MRP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
80	2.00	2.02	4.25	13.0	11.0	2.5	2.5	2	1.19	262.38	1.00-3.00	-5.25 to -8.00
80	4.50	4.57	6.25	13.5	11.5	2.5	2.5	2	2.73	115.97	1.00-3.00	-2.25 to -5.00
80	6.50	6.33	6.25	9.0	10.0	2.5	2.5	2	3.82	83.73	1.00-3.00	+2.00 to -2.00
80	8.50	8.26	6.25	8.5	13.5	2.5	2.5	2	5.07	64.16	1.00-3.00	+2.25 to +6.00

# NuPolar® Image® Progressive Poly (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	DE-CENTRATION
<b>POLYCARBONATE</b>	<b>POLARIZED</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>GRAY 3 - 83 % BROWN - 78 %</b>	<b>100 %</b>	<b>-10.00 TO +8.00</b>	<b>3.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MPR. DEC.	SEG. INSET	FITTING CROSS ABOVE MPR	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.00	2.06	4.25	14.0	11.0	3.5	2.5	2.0	1.22	257.28	1.00-3.00	-5.25 to -9.00
76	4.50	4.41	6.25	14.0	11.0	3.5	2.5	2.0	2.63	120.18	1.00-3.00	-2.25 to -5.00
76	6.50	6.40	6.25	9.5	11.0	3.5	2.5	2.0	3.86	82.94	1.00-3.00	+2.25 to -2.00
76	8.50	8.37	9.50	10.5	9.0	3.5	2.5	2.0	5.14	63.19	1.00-3.00	+2.50 to +7.00



# NuPolar® Image® Progressive Poly “Wrap-around” (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	COLOURS AND LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)	DE-CENTRATION
<b>POLYCARBONATE</b>	<b>POLARIZED</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>GRAY 3 – 83 %</b>	<b>100 %</b>	<b>-4.00 TO +6.00</b>	<b>7 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MPR. DEC.	SEG. INSET	FITTING CROSS ABOVE MPR	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	8.50	8.31	9.5	10.5	9.0	7.0	2.5	2	5.10	63.78	1.00-3.00	-4.00 to +6.00

# NuPolar® Infinite Grey™ SFSV Hard Resin (uncoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>POLARIZED PHOTOCHROMIC</b>	<b>1.50</b>	<b>59</b>	<b>1.32</b>	<b>LIGHTEST STATE - 65% DARKEST STATE - 91%</b>	<b>100 %</b>	<b>-8.50 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
76	1.25	1.23	4.25	13.0	9.2	0.73	430.64	-5.25 to -8.00
76	2.25	2.31	4.25	13.0	10.5	1.37	229.44	-4.25 to -5.00
76	3.25	3.24	4.25	12.7	10.9	1.92	163.58	-3.00 to -4.00
76	4.25	4.26	4.25	13.0	13.0	2.54	124.41	-2.00 to -2.75
76	5.25	5.24	6.25	8.4	7.5	3.14	101.15	-1.25 to -1.75
76	6.25	6.28	6.25	9.5	9.0	3.79	84.39	+2.00 to -1.00
76	7.25	7.25	6.25	8.4	10.5	4.41	73.10	+2.25 to +4.00
76	8.25	8.27	6.25	9.5	13.0	5.08	64.09	+4.25 to +6.00

# NuPolar® Infinite Grey™ SFSV Poly (hardcoated)

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	LIGHT ABSORPTION	UV ABSORPTION	PRESCRIPTION RANGE (SPHERE+CYL)
<b>POLYCARBONATE</b>	<b>POLARIZED PHOTOCHROMIC</b>	<b>1.586</b>	<b>32</b>	<b>1.21</b>	<b>LIGHTEST STATE - 65% DARKEST STATE - 91%</b>	<b>100 %</b>	<b>-10.00 TO +8.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
76	0.50	0.53	4.25	14.0	8.5	0.31	1000.00	-9.50D to +6.00D
76	1.25	1.26	4.25	14.1	9.6	0.74	420.64	
76	2.25	2.28	4.25	12.8	9.7	1.35	232.46	
76	3.25	3.27	4.25	12.9	11.2	1.94	162.08	
76	4.25	4.28	6.25	13.1	9.8	2.55	123.83	
76	5.25	5.29	6.25	13.0	11.2	3.17	100.17	
76	6.25	6.28	6.25	9.9	9.8	3.79	84.39	
76	7.25	7.28	9.50	13.1	8.4	4.42	72.80	
76	8.25	8.27	9.50	13.0	10.0	5.08	64.08	



**Transitions**<sup>™</sup>  
Drivewear<sup>®</sup>

Transitions<sup>™</sup>  
Drivewear<sup>®</sup>



**Polarized Photochromic Lenses**

**Transitions™** Drivewear® **Finished plano Trilogy® (hardcoated, back side AR coated)**

YoungerOptics **Technical Specifications 2020**

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	LIGHT ABSORPTION	TRANSMITTANCE	DIAMETER	NOMINAL CURVE	THICKNESS
<b>TRIVEX®</b>	<b>PHOTOCHROMIC POLARIZED</b>	<b>1.53</b>	<b>45</b>	<b>1.10</b>	<b>100 %</b>	<b>INACTIVE 65 % ACTIVE IN CAR 78 % ACTIVE OUTSIDE 88 %</b>	<b>INACTIVE 35 % ACTIVE IN CAR 22 % ACTIVE OUTSIDE 12 %</b>	<b>75 mm</b>	<b>6.25</b>	<b>2,2 mm</b>

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	LIGHT ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC POLARIZED</b>	<b>1.50</b>	<b>52</b>	<b>1.32</b>	<b>100 %</b>	<b>INACTIVE 65 % ACTIVE IN CAR 78 % ACTIVE OUTSIDE 88 %</b>	<b>INACTIVE 35 % ACTIVE IN CAR 22 % ACTIVE OUTSIDE 12 %</b>	<b>-8.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SAG AT 50	RADIUS	RX RANGE
74	1.25	1.28	4.25	12.7	9.3	0.75	414.06	-6.25 to -9.00
74	2.25	2.34	4.25	13.0	10.5	1.39	226.50	-4.25 to -6.00
74	3.25	3.29	4.25	12.8	11.9	1.95	161.09	-3.50 to -4.50
74	4.25	4.28	4.25	13.0	13.0	2.25	123.83	-2.25 to -3.25
74	5.25	5.32	6.25	9.2	7.5	3.19	99.62	0.25 to -2.00
74	6.25	6.32	6.25	9.5	9.0	3.81	83.86	+2.00 to 0.00
74	7.25	7.32	6.25	9.5	10.6	4.45	72.40	+4.00 to +2.25
74	8.25	8.34	6.25	10.0	13.0	5.13	63.55	+6.00 to +4.25

MATERIAL	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	LIGHT ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
TRIVEX®	SPHERICAL	1.53	45	1.1	100 %	<b>INACTIVE 65 %</b> <b>ACTIVE IN CAR 78 %</b> <b>ACTIVE OUTSIDE 88 %</b>	<b>INACTIVE 35 %</b> <b>ACTIVE IN CAR 22 %</b> <b>ACTIVE OUTSIDE 12 %</b>	<b>-9.00 TO + 7.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	CENTER	EDGE	SAG AT 50 (mm)	RADIUS	RX RANGE
76	2.25	2.30	6.25	6.11	11.35	1.36	230.435	-9.00 to +7.00
76	4.25	4.25	6.25	8.78	11.47	2.53	124.706	
76	6.25	6.25	6.25	8.92	8.41	3.77	84.800	
76	8.25	8.30	6.25	12.40	8.19	5.10	63.855	

MATERIAL	SPECIAL FEATURES	GEOMETRY	REFRACTIVE INDEX	ABBE VALUE	UV ABSORPTION	LIGHT ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE
POLYCARBONATE	PHOTOCHROMIC POLARIZED	SPHERICAL	1.586	32	100 %	<b>INACTIVE 65 %</b> <b>ACTIVE IN CAR 78 %</b> <b>ACTIVE OUTSIDE 88 %</b>	<b>INACTIVE 35 %</b> <b>ACTIVE IN CAR 22 %</b> <b>ACTIVE OUTSIDE 12 %</b>	-8.00 D TO +6.00 D

DIAMETER	NOMINAL BASE CURVE	TRUE BASE CURVE	BACK CURVE	EDGE THICKNESS	CENTER THICKNESS	SAG AT 50	RADIUS	RECOMMENDED SPHERE POWER RANGE
75	2.25	2.28	4.25	12.5	9.6	1.36	232.46	-4.25 to -8.00
75	4.25	4.28	6.25	12.4	9.7	2.55	123.83	-4.00 to -1.50
75	6.25	6.31	6.25	9.6	9.7	3.77	83.99	+2.00 to -1.25
75	8.25	8.24	9.50	13.0	10.1	5.04	64.32	+2.25 to +6.00



Transitions™  
Drivewear® 1.50 FT28 Hard Resin (hardcoated)

YoungerOptics Technical  
Specifications 2020

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	LIGHT ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)
<b>HARD RESIN</b>	<b>PHOTOCHROMIC POLARIZED</b>	<b>1.50</b>	<b>52</b>	<b>1.32</b>	<b>100 %</b>	<b>INACTIVE 65 % ACTIVE IN CAR 78 % ACTIVE OUTSIDE 88 %</b>	<b>INACTIVE 35 % ACTIVE IN CAR 22 % ACTIVE OUTSIDE 12 %</b>	<b>-8.00 TO +6.00</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	SEG INSET	SEG DROP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
74	2.25	2.31	4.25	13.2	10.6	6	5	1.37	229.44	1.00 - 3.00	-8.00 to +6.00
74	4.25	4.26	4.25	12.9	13.2	6	5	2.54	124.41	1.00 - 3.00	
74	6.25	6.27	6.25	8.9	9.1	6	5	3.77	84.53	1.00 - 3.00	
74	8.25	8.31	6.25	9.3	13.1	6	5	5.10	63.78	1.00 - 3.00	

MATERIAL	SPECIAL FEATURES	REFRACTIVE INDEX	ABBE VALUE	SPECIFIC GRAVITY	UV ABSORPTION	LIGHT ABSORPTION	TRANSMITTANCE	PRESCRIPTION RANGE (SPHERE+CYL)	MINIMUM FITTING HEIGHT	DE-CENTRATION
<b>HARD RESIN</b>	<b>PHOTOCHROMIC POLARIZED</b>	<b>1.50</b>	<b>52</b>	<b>1.32</b>	<b>100 %</b>	<b>INACTIVE 65 % ACTIVE IN CAR 78 % ACTIVE OUTSIDE 88 %</b>	<b>INACTIVE 35 % ACTIVE IN CAR 22 % ACTIVE OUTSIDE 12 %</b>	<b>-8.00 TO +6.00</b>	<b>18 mm</b>	<b>2.5 mm</b>

DIAMETER	NOMINAL CURVE	TRUE CURVE	BACK CURVE	EDGE	CENTER	MRP DEC.	SEG INSET	FITTING CROSS ABOVE MRP	SAG AT 50	RADIUS	ADD RANGE	RX RANGE
76	2.00	2.04	4.50	13.3	11.3	2.5	2.5	2	1.21	259.80	1.00-3.00	-5.25 to -8.00
76	4.50	4.61	6.50	13.3	11.8	2.5	2.5	2	2.75	114.97	1.00-3.00	-2.25 to -5.00
76	6.50	6.38	6.50	9.3	10.5	2.5	2.5	2	3.85	83.07	1.00-3.00	-2.00 to +2.00
76	8.50	8.36	6.50	10.0	14.3	2.5	2.5	2	5.14	63.40	1.00-3.00	+2.25 to +6.00



## New Technology New Frontier of performance

The perfect lens for everyday life. Constantly adapts to all light situations for better vision, comfort and protection.



Faster activation  
and feedback



Even  
darker



Fully Clear  
Indoors



Ultimate eye  
protection



Long lasting  
performance



## Best for extra protection, even in the car

Uniquely designed to protect eyes from the brightest sun outdoors and harsh artificial light indoors.

- Extra dark outdoors to protect from the brightest sun even in hot conditions
- Darken behind windshield
- Highest level of harmful blue light protection
- Block 100% of UV rays



## Intelligent lenses for drivers

Driving conditions change rapidly and so do Drivewear Transitions sun lenses. They combine two of the most advanced technologies in the eyewear industry. NuPolar Polarization eliminates glare coming off the road and car hood. Transitions photochromic technology adjusts the colour and tint of the lenses as light conditions change.



## The best polarized lenses in the world providing unparalleled comfort and protection efficiency

- The most efficient polarizing film absorbs and eliminates more than 99% of blinding glare and also fully blocks harmful UVA and UVB light
- The way polarizing film is incorporated into the lens allows to produce thinner lenses, expand prescription range and create individual digital lenses
- The polarizing film is embedded into the lens material using unique patented process, the result of which is the strongest chemical bond eliminating the possibility of lens delamination
- Available in widest range of optical materials, colours and optical designs, they can be used for any type of vision correction and any frame style with virtually no limitations



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