

# Optical Standards – New Jersey (Only)

# EYEWEAR INSPECTION JOB AID

POWER TOLERANCES	
Distance	
PI - 6.00D	± .12D
6.12D - 11.87D	± 2 %
12.00D and above	± .25D

CYLINDER POWER	
Power	Tolerance
All Powers	± .12D

CYLINDER AXIS	
Power	Tolerance
0.12D - 0.37D	3°
0.50D - 1.00D	2°
1.12D and above	1°
Polar Axis ± 3° from frame datum line	

HORIZONTAL IMBALANCE / DISTANCE PD TOLERANCE	
SINGLE VISION, MULTI FOCAL & PROGRESSIVE LENSES	
Power	Tolerance
All Powers	1/4D per lens or 1/2D total per pair
VERTICAL IMBALANCE (2)	
SINGLE VISION, MULTI FOCAL & PROGRESSIVE LENSES	
Power	Tolerance
All Powers	1/4D per lens or 1/3D total per pair

DESIGN DESCRIPTION		LAYOUT FOR INSPECTION	
Single Vision			
Optimized Single Vision		0 mm	
Eyezen Start, Eyezen+1, Eyezen+2, Eyezen+3		4 mm	
Progressives			
AVP, ComfortLight, Elite, EVP, HD, MVC, PearleTHIN, Premier, Premium, Prog Wrap, Superior & XVP		4 mm	
Accolade, Varilux		4 mm	
BIQ Workspace (Ideal Computer)		Use designated layout chart	
Workspace (not Ideal Computer)		0 mm	
RayBan, Oakley, Costa, Maui Jim		4 mm	

For detailed information regarding micro engravings, see the Vision Council's Progressive Identifier chart

OPTICAL INSPECTION NOTES	
1	When dissimilar heights are requested, the relationship between the two must be maintained within 1mm. In the case of dissimilar fit heights, vertical prism tolerances must be applied. (see Vertical Imbalance Chart in the Optical Standards section)
2	On Rx's where prism is prescribed, the prism must meet documented tolerances. Prism used for prismatic thinning is inspected in the same manner as prescribed prism. When verifying fit height, use Vertical Imbalance tolerances. (see Vertical Imbalance Chart in the Optical Standards section)
3	Center thickness shall be measured at the prism reference point. Edge thickness at the thinnest edge.
4	Progressives: If the sum of the distance power and add power is a positive number, the lens should be considered a (+) lens for thickness purposes.
5	For powers between +4.00 D and +7.87, minimum ET is 1.5, +8.00 and higher minimum ET is 1.2.
6	Surfaced lenses with powers between +2.00 and -2.00 may have a minimum Center Thickness of up to 2.6mm. For Oakley frames, Plus ET and Minus CT may be as high as 2.5mm, regardless of Rx power
7	For groove mounted frames: use the material thickness standards for minus lenses, ensure that the edge thickness is not less than 1.8mm. For Plus lenses follow the specified edge thickness tolerance for Grooved Rimless Mounts.
8	For In-line metal frames or grooved rimless frames using metal wire mountings: use the material thickness standards for minus lenses, edge thickness must not be less than 2.3mm. Plus lenses follow the specified edge thickness tolerances for In-line Groove Mounts.
9	For drilled rimless mounted frames: use the material thickness standards for minus lenses, edge thickness must not be less than 1.8mm. Plus lenses follow the specified edge thickness for Drilled Rimless Mounts
10	Sport eyewear may only be produced in Polycarbonate lens material. Sport eyewear are not to be monogrammed as the frames are not Z-87 approved.
11	High impact safety eyewear (Z-87+) may only be produced in Polycarbonate material. The lenses must be mounted in a Z-87+ frame. If either of these items are not met, the lenses cannot be monogrammed with the high impact "+" logo.
12	In minus power/ high add combinations, additional center thickness is necessary to compensate for segment thickness. In these cases, the tolerance is ±.2 mm from manufacturer's specifications.
13	Basic Impact safety lenses - Minimum thickness at any point in the lens must be 3.0mm. Glass lenses (available in US stores only) must be individually impact tested by the processing lab. Plastic, High Index and Poly safety lenses are batch tested and don't require in-store drop ball testing.

THICKNESS TOLERANCE					
NOTES 3, 4 & 6 Apply to all Lens Materials					
MATERIAL / LAB	NOTE	PI or Minus CT		PI or Plus ET	
		MIN	MAX	MIN	MAX
Plastic (1.50)	FSV Clear & A/R	5	1.8	2.4	1.7
	Surfaced Clear, A/R, Transitions SV & Prog.	5	2.0	2.7	1.7
	Polarized	5	1.8	2.5	1.7
	Transitions Bifocal & Blue Filter	5	2.3	3.0	1.7
Poly & Trivex	Clear FSV Transitions FSV Surfaced RxO Labs		1.1	2.2	1.0
	Clear LC Labs		1.4	2.3	1.3
	Polarized (all Labs)	6	1.5	2.2	1.5
	Surfaced Transitions (All Labs)	6	1.6	2.3	1.5
	Oakley, Costa		1.7	2.5	1.7
Hi-Index 1.60, 1.67	Clear FSV		1.1	2.2	1.2
	Clear RxO Labs	6	1.5	2.2	1.5
	Transitions / Blue Filter / Polarized				2.2
Hi-Index 1.74	All Lens Types	6	1.5	2.2	1.3
GROOVE RIMLESS MOUNTS		7			1.6
IN-LINE GROOVE MOUNTS		8			2.1
DRILLED RIMLESS MOUNTS		9			2.5
BASIC SAFETY		13	3.0	3.7	3.0
SPORT / HIGH IMPACT SAFETY / GLASS / Hi INDEX GLASS		10-13	2.0	2.7	2.0