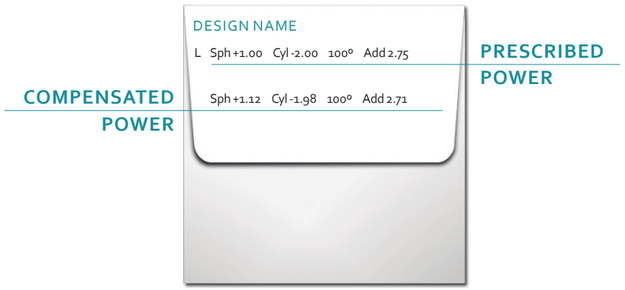
HOW TO **CHECK A COMPENSATED LENS** WITH THE LENSOMETER

PRESCRIBED POWER

Prescribed power is determined by a doctor's prescription. Conventional lenses are calculated to yield this power when measured with a lensometer (perpendicular to the back surface). However, when using a lensometer with compensated lenses, measured power is different from prescribed power.

COMPENSATED POWER

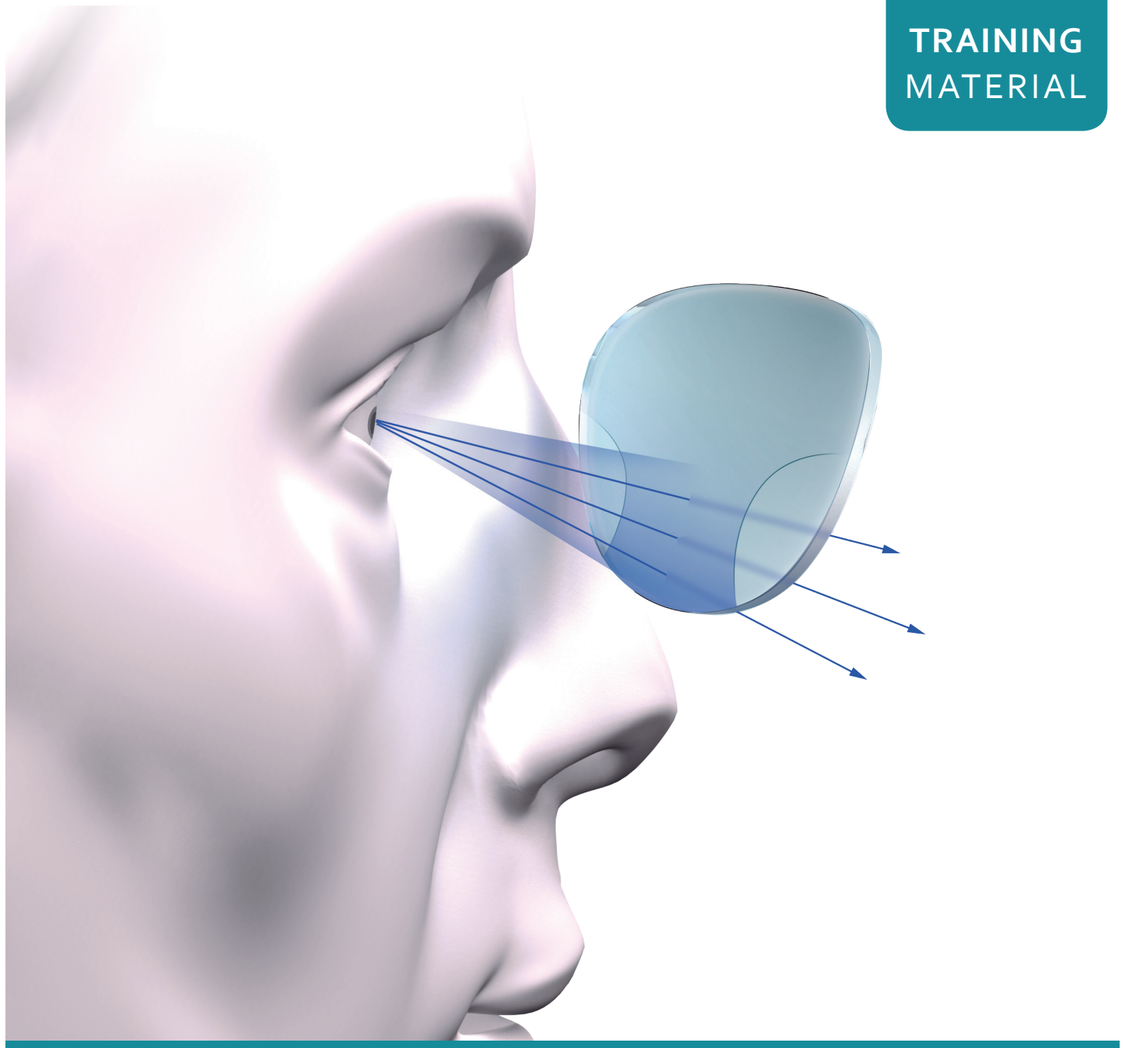
Digital Ray-Path® eliminates oblique aberrations, modifying power at each point on the lens. Wearers get the power they need in addition to better vision in each gaze direction. The lens will read a different power when measured with a lensometer, the difference is called Compensated Power.



Digital Ray-Path® lenses display both prescribed power and compensated power. Compensated power is the power that must be checked for quality inspection using the lensometer.

PLASTIC PLUS
NO ONE DOES DIGITAL BETTER

TRAINING MATERIAL



COMPENSATED POWER

SINGLE VISION & PROGRESSIVE LENSES

PLASTIC PLUS
NO ONE DOES DIGITAL BETTER

Powered by DIGITAL RAY-PATH®

WHY COMPENSATED LENSES?

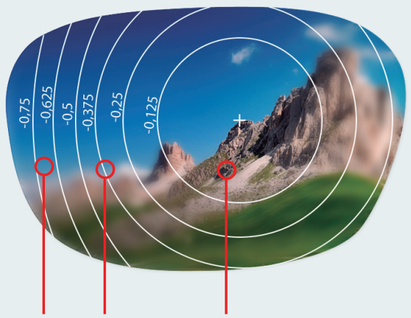
Digital Ray-Path® compensated lenses are calculated and optimized to all wearers. This is one of the biggest advantages of free-form lenses. The highest visual acuity and widest visual fields are achieved for all prescriptions and can be manufactured with all base curves and types of material.

WHY IS IT SO **IMPORTANT FOR MY PATIENTS** TO HAVE **COMPENSATED LENSES**?

Oblique aberration is a focusing error experienced by wearers while looking at an area that is away from the optical center. This aberration reduces wearer visual acuity, thus negatively affecting lens visual fields. **It is important to compensate and correct the effect caused by oblique astigmatism** in single vision and progressive lenses, **especially in medium-high powers or wrap frames,** in order to offer patients high visual definition and wider visual fields.

CONVENTIONAL SINGLE VISION +2.00 DPT

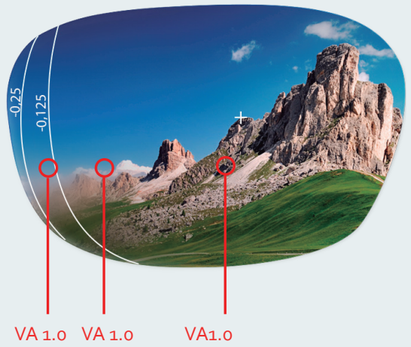
Oblique aberration effect



- Clear vision only at the center
- Reduced visual field
- Visual acuity decreased when looking peripherally

COMPENSATED SINGLE VISION +2.00 DPT

Compensated power effect



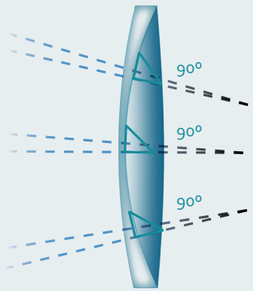
- Clear vision from center to edge
- Maximized visual field
- Maximum visual acuity throughout the entire lens

POWER CALCULATION FOR **CONVENTIONAL LENSES**

In conventional lenses, power is calculated by taking into consideration that light follows perpendicular to the back surface of the lens.

The wearer's visual experience is less than perfect, especially when looking at lateral gaze directions. In this situation, the light does not follow perpendicular to the back surface trajectory and produces an oblique aberration that leads to a reduction in visual quality.

CONVENTIONAL LENS

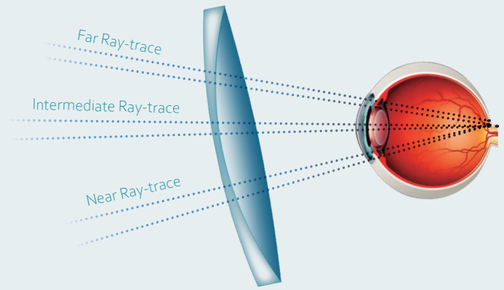


- Lens power is not compensated
- The power of the lens matches the patient's Rx
- Oblique aberrations reduce visual acuity

POWER CALCULATION FOR **COMPENSATED LENSES**

Digital Ray-Path® technology is based on a simulation of the lens in front of the eye, which takes into account all wearer's personalization parameters (or default values if real values are not provided), and simulates how the eye rotates to look in every direction, at various distances. Undesired oblique aberration is minimized at each position to improve the wearer's vision by changing the power at the back surface.

COMPENSATED LENS



- It considers the real eye-lens system
- The power of the lens = compensated power
- The wearer perceives his/her accurate Rx power