

## Lens Materials

Spectacle lenses come in a variety of materials. Each has specific characteristics that make them unique. Below are some of the features of the more common lens materials.

### Polycarbonate

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- Most impact-resistant material available
- Thinner than CR-39
- Lighter than CR-39
- Good optics in lower powers
- Built-in UV protection
- Hard-coated for scratch resistance
- Not tintable
- Reduced optical clarity in periphery in higher powers (+ or – 4.00 and above)

### High Index

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- Thinner than CR-39
- Lighter than CR-39
- Good optics
- Flatter than standard lenses
- Built-in UV protection
- Hard-coated for scratch resistance
- Highly tintable

### CR-39<sup>®</sup> (plastic)

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- Good optics
- Lighter than glass
- Hard-coated for scratch resistance
- Safer than glass
- Tintable

### Glass

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- Good optics
- Heavy
- Scratch resistant
- Least shatterproof of all lens materials

## Lens Enhancements

Enhancements are features that are added to the basic lens in order to improve performance and provide better vision to the patient. Following are the most common lens enhancements and their key wearer benefits.

### Ultraviolet (UV) Coating

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- Blocks harmful ultraviolet sun rays
- Helps protect from certain eye diseases
- Built into polycarbonate and high index materials and Transitions® treatment

### Anti-Reflective (AR) Coating

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- Lenses look almost invisible
- Objects appear brighter and sharper
- Improves night vision

### Photochromic Tints

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- Light indoors/darkens outdoors in UV light
- Reduces squinting
- Built-in UV protection
- Available on a variety of materials
  - CR-39
  - Polycarbonate
  - High-Index
  - Glass

### Color Tints

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- Helps reduce glare
- Eases eye strain
- Adds to the appearance of glasses

### Polarized

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- Eliminates glare from sun, wet roadways and snow
- Absorbs sunlight to allow sharper vision
- Reduces squinting outdoors
- Blocks harmful UV sun rays