

# Uvex Lens Technology



## Expanding the Focus of Protective Eyewear

Providing truly functional eyewear is becoming a much more specialized task, particularly as the specifics of various jobs are analyzed across many industries and market segments. Impact protection, while certainly a vital requirement, is no longer the sole function of protective eyewear. Fit, comfort, style and visual performance all contribute to a total package that addresses workplace hazards as well as compliance issues faced by the safety professional.

In the area of visual function, Uvex® has developed a technology that incorporates unique dyes, designed to absorb select wavelengths of radiant energy (light), into the polycarbonate lens. This science is called **Spectrum Control Technology®** or **SCT**, a term that describes the ability of a lens to manipulate light to reduce a spectral hazard or to provide distinctive filtration for specific viewing tasks.

SCT is a natural evolution of Uvex plastic lens technology that has employed specifically formulated resins to screen ultraviolet (UV) radiation in sunglasses and sport shields. In fact, Uvex stands for Ultra Violet Excluded. All Uvex SCT protective lenses employ this technology, filtering 99.9% of the UV radiation from 200 to 400 nm.

Spectrum Control Technology has found applications in a number of areas. Certain dyes and tints include basic compounds that filter solar radiation to reduce glare and to block radiation from operations such as welding. In the later case, in addition to UV filtration, broadband infrared (IR) absorbers are blended into the polycarbonate to produce the shades necessary for compliance with the requirements of Table 1 in ANSI Z87.1.

Carrying the technology a step further, it became apparent that eyewear could be designed to provide functional assistance for specialized viewing tasks. In these cases, the emphasis is not solely on blocking harmful radiation but rather on providing distinctive lens tints to enhance visual perception.

For instance, in operations where high levels of yellow lighting are present, **SCT-Blue** lenses can be useful in counteracting the color distortion present, helping to prevent eye fatigue. **SCT-Vermilion** lenses have been used in certain inspection operations where the color shift enhances contrast or highlights shadowing for better inspection results and increased productivity. **SCT-Orange** is effective at filtering blue and violet light that is present with UV curing lamps.

Incorporation of IR absorbing dyes are also employed to provide functional properties for sun wear. For example, **SCT-Gray** lenses reduce solar glare while allowing excellent color perception. The addition of special dyes also make the lens a good choice for utility workers who may be exposed to short term electric arcs, where UV, IR, and blue light are present.

Another member of the SCT family is **SCT-Cobalt**, a deep blue lens used by furnace workers. It replaces cobalt glass, which is becoming scarce. The polycarbonate lens offers the same spectral performance, including IR protection, as the glass, but half the weight.

The performance and utility of all SCT lenses is enhanced by the use of functional coatings, and Uvex applies either of two proprietary formulations. Uvex ultradura® hardcoat imparts scratch resistance as well as resistance to a wide variety of industrial chemicals. For environments where fogging may be an issue, Uvex offers its uvextreme® anti-fog coating that works by absorbing and releasing moisture in a dynamic manner to help reduce fogging.

The tinted lenses described here are special purpose and are subject to specific marking requirements in keeping with the ANSI Z87.1 standard. The safety professional and end-user should use these tints only in areas where an on-site or workplace hazard assessment has determined that a hazard or viewing task exists. These tints should not be used as general-purpose eyewear as reduced levels of transmittance or color bias may be present.

# Table of Contents

Uvex Clear	1
Uvex Amber	2
Uvex Espresso	3
Uvex Espresso Gold Mirror	4
Uvex SCT Reflect 50	5
Uvex Light Gray	6
Uvex 50% Gray	7
Uvex Standard Gray	8
Uvex Silver Mirror	9
Uvex Dark Gray	10
Uvex SCT Orange	11
Uvex Sct Vermilion	12
Uvex SCT Low-IR	13
Uvex SCT Gray	14
Uvex SCT Blue	15
Uvex SCT Cobalt Blue	16
Uvex Infra-dura 2.0	17
Uvex Infra-dura 3.0	18
Uvex Infra-dura 5.0	19

# Uvex® Clear Lenses

Uvex Safety manufactures a clear lens for indoor and outdoor work environments where normal to low light conditions exist. This clear lens has a Visible Light Transmittance of 92%. This means 92% of the available light will pass through the lens. The clear lens will absorb 99.9% of UVA and UVB radiation up to 400nm. The clear lens also provides true color recognition and meets the traffic signal color requirements of ANSI Z80.3-1996. It is suggested as a general purpose safety spectacle lens for most indoor applications.

For general purpose use, Uvex suggests clear lenses indoors and sunglass tints, preferably gray or brown, for outdoors. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.

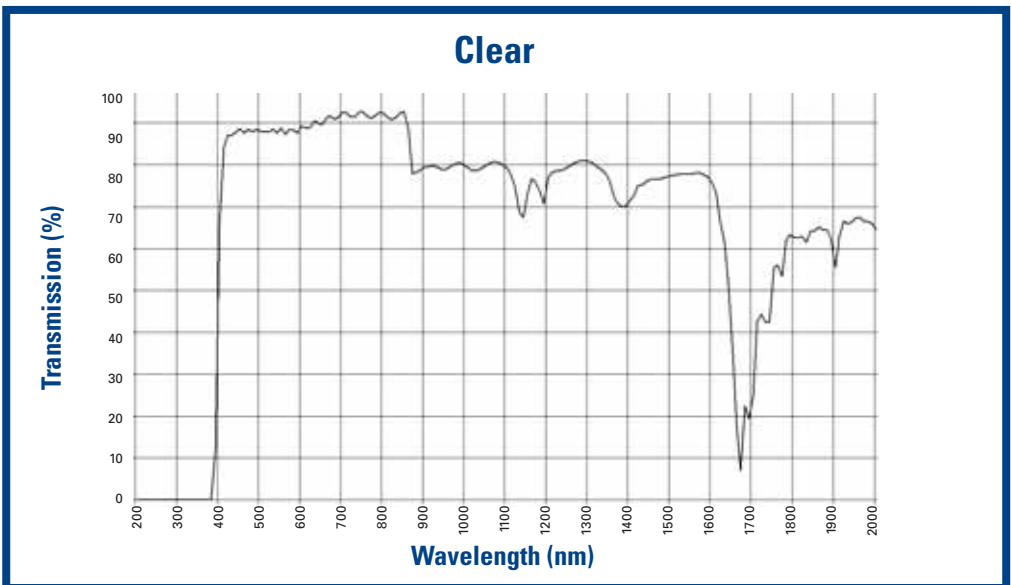
## Suggested For

- General Purpose

## Specifications

- VLT= 92%
- UV Absorption = >99.9%
- Color = Clear

**UVEX™**  
by SPERIAN



# Uvex® Amber

## Suggested For

- Low Light Applications
- Where Enhanced Contrast Is Needed

## Specifications

- VLT= 90%
- UV Absorption = >99.9%
- Color = Yellow

\*Amber lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.

Lenses are available in a variety of tints to reduce glare, screen hazardous radiation, or to provide other task specific filtration. In the case of amber lenses, the yellow color filters out light at the blue end of the spectrum while allowing green and red light to pass. Green light is most efficiently processed by the eye, while blue light is not as easily focused, and can reduce contrast. This is particularly noticeable when light conditions are hazy such as at dusk or on foggy days. In these cases, amber lenses will cut down or eliminate the haze associated with the blue light, giving the perception of clearer and brighter vision.

Uvex amber lenses transmit about 90% of the available light when “photopic” or daytime transmittance is calculated according to the requirements of ANSI Z87. It weighs the eye’s ability to see in a bell curve centered around the green portion of the spectrum. In addition, the lenses satisfy the color limit requirements of ANSI Z80.3, the sunglass standard, as they

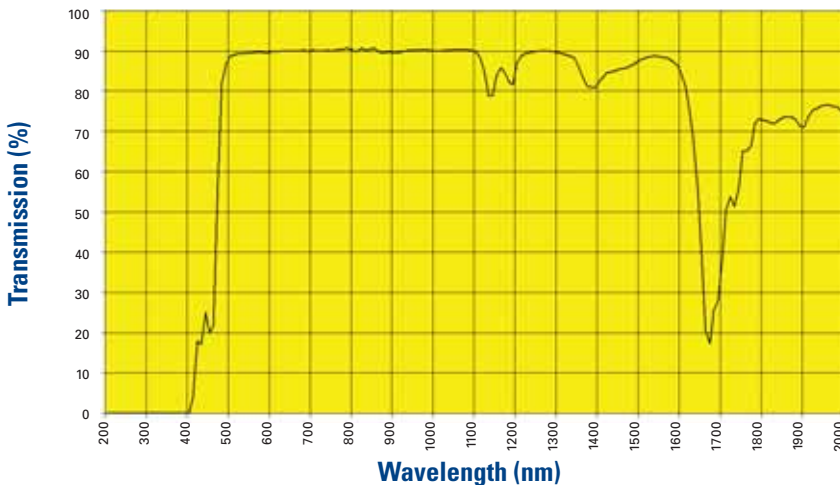
relate to properties that influence traffic signal recognition. In most cases, amber lenses would be acceptable for daytime use.

At night, however, the eye processes information differently. Night time or “scotopic” transmittance is calculated using a weighting factor in which the bell curve is shifted toward the blue portion of the spectrum. Since amber lenses filter out blue light, the direct effect is to reduce the light available. The calculated transmittance of a Uvex amber lens drops to 70%, which is a 20% loss of VLT. Amber lenses that are deeper in color would result in an even greater loss of transmittance. Under these circumstances, Uvex discourages night time use of amber lenses as general-purpose eyewear.

For general purpose use, Uvex suggests clear lenses indoors and sunglass tints, preferably gray or brown, for outdoors. As with all personal protective equipment, it is the employer’s responsibility to conduct an on-site or workplace hazard assessment.



## Amber



# Uvex® Espresso

While impact protection is certainly a vital requirement for any safety eyewear, it is no longer the sole function. Many work applications include daily exposure to ultraviolet light and visible glare. Outdoor workers, such as gardeners and groundskeepers, masons, construction workers, lifeguards, pilots, and roofers to name a few, are exposed daily to solar UV radiation and intense visible sunlight. If these workers take photosensitizing drugs, or had cataract surgery, or experience any type of retinal disorder, their eyes may be even more susceptible to this type of harmful light. Protective eyewear that incorporates a “general purpose” lens tint will effectively provide glare and UV protection while enhancing visual comfort for these workers.

Uvex manufactures an espresso lens tint for outdoor work environments where sunlight and glare cause eyestrain and fatigue. This sunglass tint is brown/amber in color and has a Visible Light

Transmittance of about 15%. This means 15% of the available light will pass through the lens. The espresso lens will absorb 99.9% of UVA and UVB radiation up to 400nm. The espresso lens tint also provides true color recognition and meets the traffic signal color requirements of ANSI Z80.3-1996. It is suggested as a general purpose sunglass lens for driving and most outdoor activities.

The Uvex espresso lens is also a “blue blocker” lens. While blue light is not harmful to the eyes, it can cause eye fatigue. Blue light makes things appear hazy and out of focus. The Uvex espresso “blue blocker” lens will absorb 97% of blue light, thereby enhancing contrast. This lens tint is a recommended alternative to traditional gray lenses. As with all personal protective equipment, it is the employer’s responsibility to conduct an on-site or workplace hazard assessment.

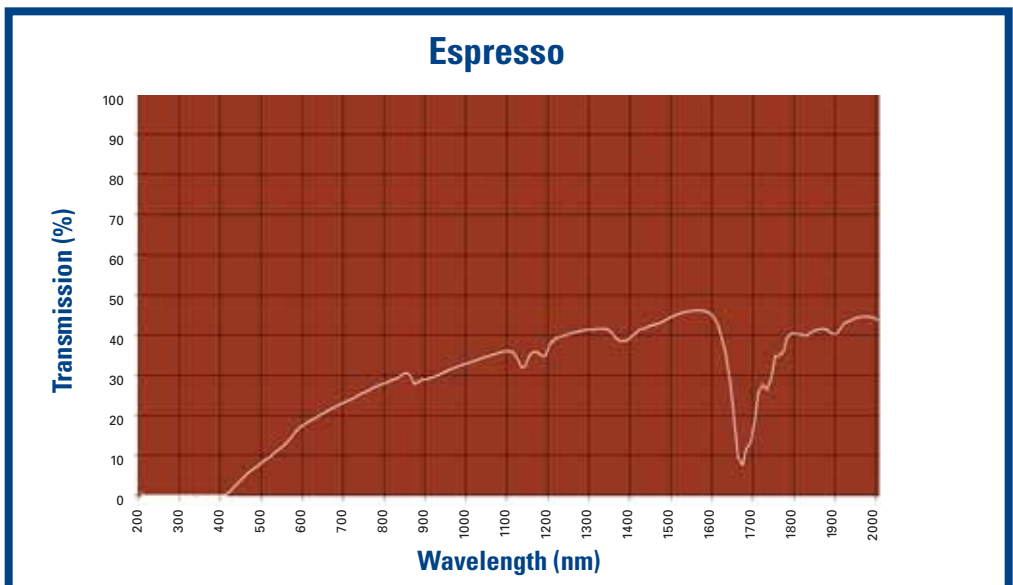
## Suggested For

- General Purpose Sunglass Protection
- Landscaping
- Construction
- Airline Pilots
- Roofing
- Transportation

## Specifications

- VLT = 15%
- UV Absorption = >99.9%
- Blue Light Transmittance= <3%
- IR Absorption\* = 60%
- Color = Brown/Amber

\*Espresso lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.



# Uvex® Espresso Gold Mirror

## Suggested For

- General Purpose Sunglass Protection
- Landscaping
- Masons
- Construction
- Airline Pilots
- Roofing

## Specifications

- VLT = 15%
- UV Absorption = >99.9%
- Blue Light Transmittance = <3%
- IR Absorption\* = 60%
- Color = Brown/Gold

\*Espresso gold mirror lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.

Many work applications include daily exposure to ultraviolet light and visible glare. Outdoor workers, such as gardeners and groundskeepers, masons, highway construction workers, lifeguards, pilots, and roofers to name a few, are exposed daily to solar UV radiation and intense visible sunlight. If these workers take photosensitizing drugs, had cataract surgery, or experience any type of retinal disorder, their eyes may be more susceptible to this type of harmful light. Protective eyewear that incorporates a “general purpose” lens tint will effectively provide glare and UV protection while enhancing visual comfort for these workers.

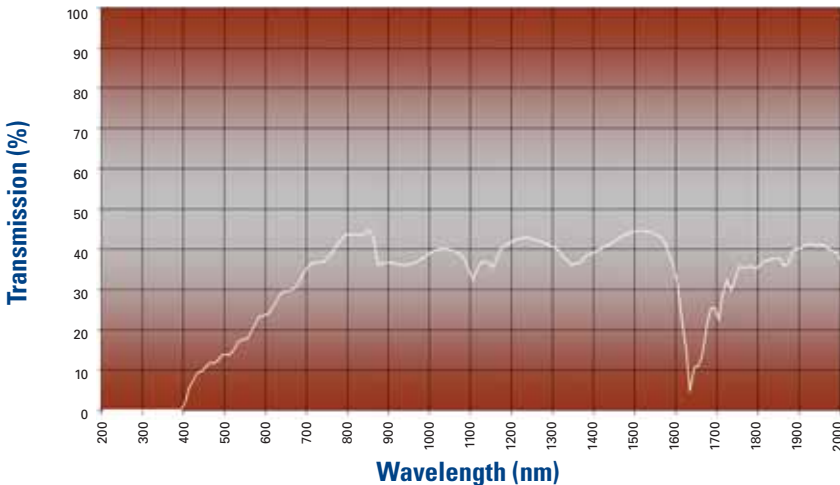
Uvex Safety manufacturers an espresso gold mirror lens tint for outdoor work environments where sunlight and glare cause eyestrain and fatigue. This sunglass tint is brown/gold in color and has a Visible Light Transmittance of about

15%. This means 15% of the available light will pass through the lens. The espresso mirror lens will absorb 99.9% of UVA and UVB radiation up to 400nm. The espresso mirror lens tint also provides true color recognition and meets the traffic signal color requirements of ANSI Z80.3-1996. It is suggested as a general purpose sunglass lens for driving and most outdoor activities.

The Uvex espresso gold mirror lens is also a “blue blocker” lens. While blue light is not harmful to the eyes, it can cause eye fatigue. Blue light makes things appear hazy and out of focus. The Uvex espresso gold mirror “blue blocker” lens will absorb 97% of blue light, thereby enhancing contrast. This lens tint is a suggested alternative to traditional gray lenses. As with all personal protective equipment, it is the employer’s responsibility to conduct an on-site or workplace hazard assessment.



## Espresso Gold Mirror



# Uvex® SCT Reflect-50

When workers move from indoor work environments to sunny outdoor applications (fork lift drivers, truck drivers, loaders, packers etc.), custom lens tints may be used to reduce glare. If these workers take photosensitizing drugs, have had cataract surgery, or experience any type of retinal disorder, their eyes may be more susceptible to this type of harmful light. Protective eyewear that incorporates a task specific lens tint will effectively provide glare and UV protection while enhancing visual comfort for these workers.

Uvex Safety manufactures a SCT Reflect-50 lens tint for workers who work in both indoor and outdoor work applications to reduce glare which can cause eyestrain and fatigue. This tint is clear in color with a flash mirror coating and has a Visible Light Transmittance of about 50%. This means 50% of the available light will pass through the lens. The SCT Reflect-50 lens will

absorb 99.9% of UVA and UVB radiation up to 385nm. The SCT Reflect-50 lens tint also provides true color recognition and meets the traffic signal color requirements of ANSI Z80.3-1996. It is suggested as a general purpose sunglass lens for driving. It is designed specifically to suppress glare in bright indoor applications or to allow easy transition from inside to outside, cutting glare in less than full sun conditions. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.

## Suggested For

- General Purpose Sunglass Protection
- Lift Drivers
- Truck Drivers
- Highway Construction
- Airline Pilots
- Transportation
- Loading Dock and Warehouse Operations

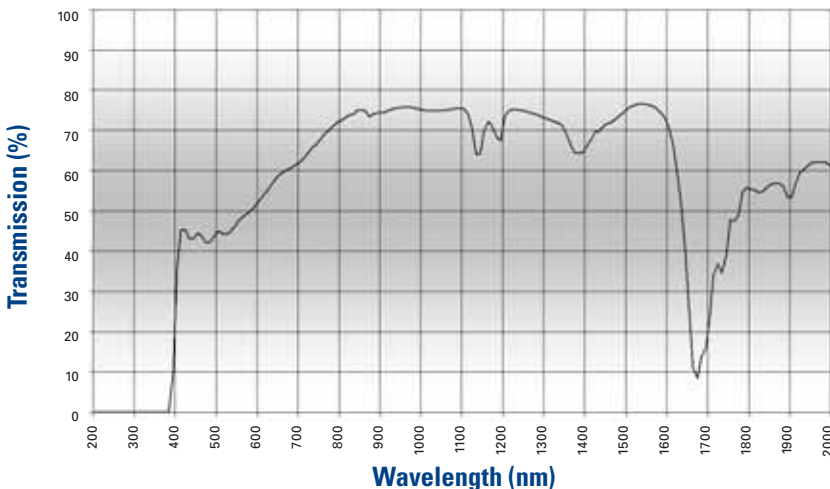
## Specifications

- VLT = 50%
- UV Absorption = >99.9%
- Color = Clear with Mirror Coating

\* SCT Reflect-50 does not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.

**UVEX™**  
by SPERIAN

## SCT-Reflect 50





# Uvex® Light Gray

## Suggested For

- General Purpose Sunglass Protection
- Lift Drivers
- Truck Drivers
- Highway Construction
- Airline Pilots
- Utility Drivers
- Warehouse Operators

## Specifications

- VLT = 35%
- UV Absorption = >99.9%
- IR Absorption\* = 40%
- Color = Light Gray

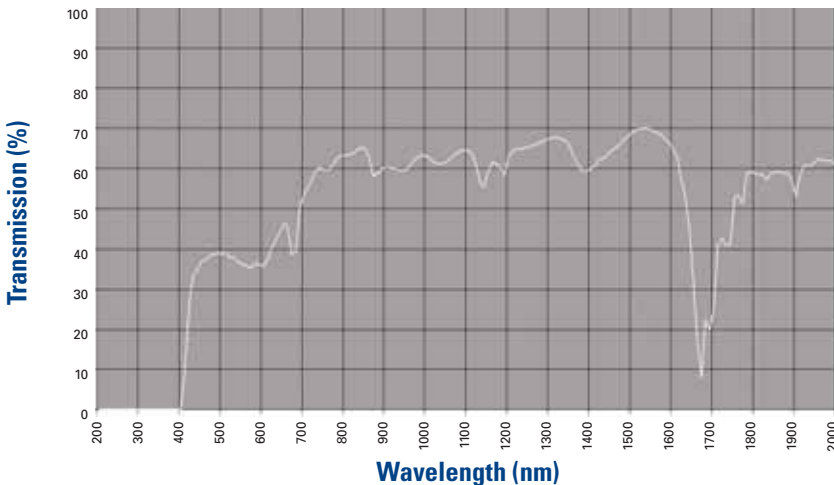
\* Light gray lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application

While impact protection is certainly a vital requirement for any safety eyewear, it is no longer the sole function. Many work applications include daily exposure to ultraviolet light and visible glare. When workers move from indoor work environments to brighter outdoor applications, (fork lift drivers, truck drivers, loaders, packers etc...) custom lens tints may be used to reduce glare. If these workers take photosensitizing drugs, have had cataract surgery, or experience any type of retinal disorder, their eyes may be more susceptible to harmful light. Protective eyewear that incorporates a "general purpose" lens tint will effectively provide glare and UV protection while enhancing visual comfort for these workers. Light tints allow an easy transition from indoor to outdoor situations and cut glare in less than full sun conditions.

Uvex manufactures a light gray lens tint for workers who work in both indoor and outdoor work applications to reduce glare which can cause eyestrain and fatigue. This tint is light gray in color and has a Visible Light Transmittance of about 35%. This means 35% of the available light will pass through the lens. The light gray lens will absorb 99.9% of UVA and UVB radiation up to 400nm. The light gray lens tint also provides true color recognition and meets the traffic signal color recognition requirements of ANSI Z80.3-1996. It is suggested as a general purpose sunglass lens for driving and other outdoor activities. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.



## Light Gray



# Uvex® 50% Gray

Many work applications include daily exposure to ultraviolet light and visible glare. When workers move from indoor work environments to brighter outdoor applications (fork lift drivers, truck drivers, loaders, packers etc.), custom lens tints may be used to reduce glare. If these workers take photosensitizing drugs, have had cataract surgery, or experience any type of retinal disorder, their eyes may be more susceptible to harmful light. Protective eyewear that incorporates a “general purpose” lens tint will effectively provide glare and UV protection while enhancing visual comfort for these workers. Light tints allow an easy transition from indoor to outdoor situations and cut glare in less than full sun conditions.

Uvex manufactures a 50% gray lens tint for workers who work in both indoor and outdoor work

applications to reduce glare which can cause eyestrain and fatigue. This tint is 50% gray in color and has a Visible Light Transmittance of about 50%. This means 35% of the available light will pass through the lens. The 50% gray lens will absorb 99.9% of UVA and UVB radiation up to 400nm. The 50% gray lens tint also provides true color recognition and meets the traffic signal color recognition requirements of ANSI Z80.3-1996. It is suggested as a general purpose sunglass lens for driving and other outdoor activities. As with all personal protective equipment, it is the employer’s responsibility to conduct an on-site or workplace hazard assessment.

## Suggested For

- General Purpose Sunglass Protection
- Lift Drivers
- Truck Drivers
- Highway Construction
- Pilots
- Utility Workers
- Warehouse Operators

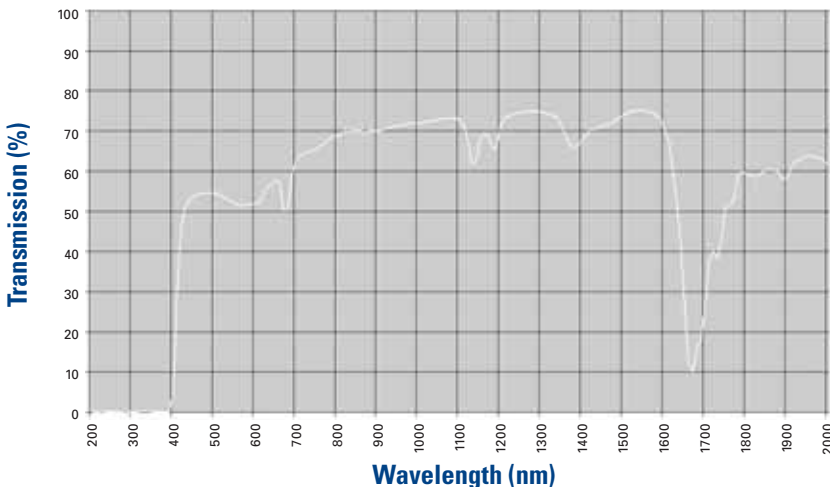
## Specifications

- VLT = 50%
- UV Absorption = >99.9%
- IR Absorption\* = 30%
- Color = light gray

\* Light gray lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.

**UVEEX™**  
by SPERIAN

## 50% Gray



# Uvex® Standard Gray

## Suggested For

- General Purpose Sunglass Protection
- Landscaping
- Construction
- Airline Pilots
- Utility Workers
- Transportation

## Specifications

- VLT = 15%
- UV Absorption = >99.9%
- IR Absorption\* = 50%
- Color = Gray

\* Standard gray lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.

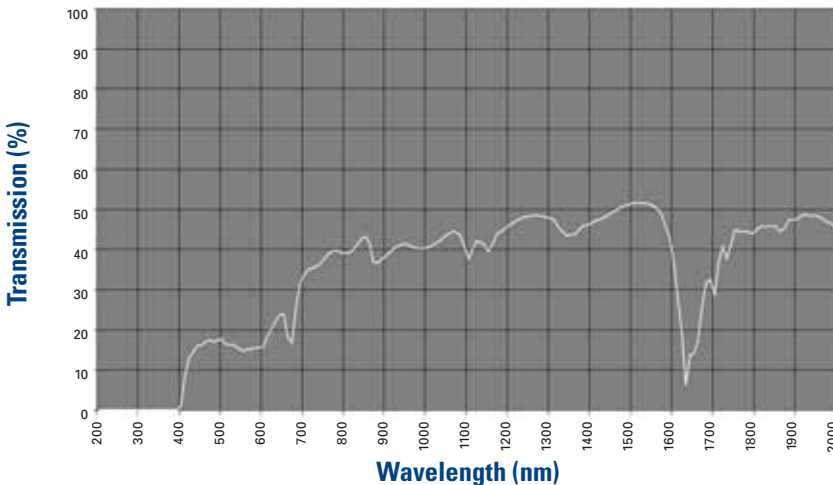
Outdoor workers, such as gardeners and groundskeepers, masons, utility workers, highway construction workers, lifeguards, pilots, and roofers to name a few, are exposed daily to solar UV radiation and intense visible sunlight. Protective eyewear that incorporates a “general purpose” lens tint will effectively provide glare and UV protection while enhancing visual comfort for these workers.

Uvex Safety manufactures a neutral gray lens tint for outdoor work environments where sunlight and glare cause eyestrain and fatigue. This sunglass tint is gray in color and has a Visible Light Transmittance of about 15%. This means 15% of the available light will pass through the lens. The gray

lens will absorb 99.9% of UVA and UVB radiation up to 400nm. The gray lens tint also provides true color recognition and meets the traffic signal color requirements of ANSI Z80.3-1996. It is suggested as a general purpose sunglass lens for driving and most outdoor activities. As with all personal protective equipment, it is the employer’s responsibility to conduct an on-site or workplace hazard assessment.

# UVE

## Standard Gray



# Uvex® Silver Mirror

Many work applications include daily exposure to ultraviolet light and visible glare. Outdoor workers, such as gardeners and groundskeepers, masons, utility workers, highway construction workers, lifeguards, pilots, and roofers to name a few, are exposed daily to solar UV radiation and intense visible sunlight. Protective eyewear that incorporates a “general purpose” lens tint will effectively provide glare and UV protection while enhancing visual comfort for these workers.

Uvex Safety manufacturers a silver mirror lens tint for outdoor work environments where sunlight and glare cause eyestrain and fatigue. This sunglass tint is gray/silver in color and has a Visible Light Transmittance of about 15%.

This means 15% of the available light will pass through the lens. The silver mirror lens will absorb 99.9% of UVA and UVB radiation up to 400nm. The silver mirror lens tint also provides true color recognition and meets the traffic signal color requirements of ANSI Z80.3-1996. It is suggested as a general purpose sunglass lens for driving and most outdoor activities. As with all personal protective equipment, it is the employer’s responsibility to conduct an on-site or workplace hazard assessment.

## Suggested For

- General Purpose Sunglass Protection
- Landscaping
- Masons
- Construction
- Airline Pilots
- Utility Work
- Roofing
- Transportation

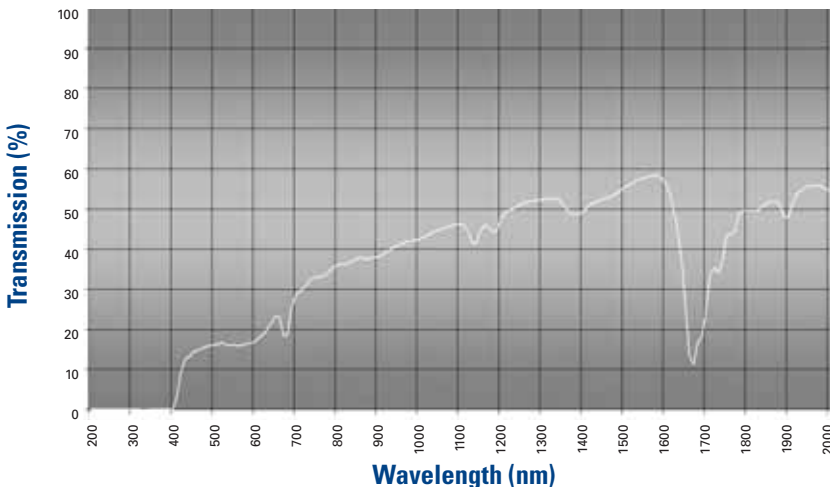
## Specifications

- VLT = 15%
- UV Absorption = >99.9%
- IR Absorption\* = 60%
- Color = Silver/Mirror

\* Silver mirror lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.

# UVE

## Silver Mirror



# Uvex® Dark Gray

## Suggested For

- General Purpose Sunglass Protection
- Landscaping
- Construction
- Airline Pilots
- Utility Workers
- Transportation

## Specifications

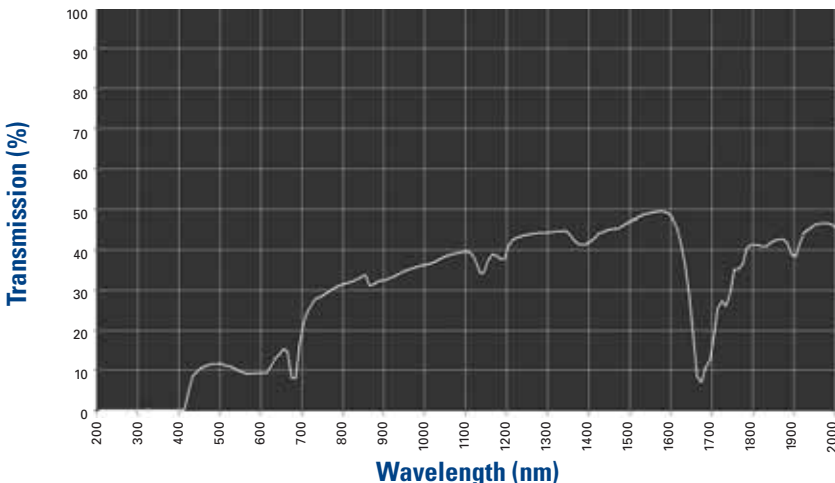
- VLT = 10%
- UV Absorption = >99.9%
- IR Absorption\* = 60%
- Color = Dark Gray

\* Dark gray lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application

Uvex manufactures a dark gray lens tint for outdoor work environments where strong sunlight and glare cause eyestrain and fatigue. This sunglass tint is dark gray in color and has a Visible Light Transmittance of about 10%. This means 10% of the available light will pass through the lens. The dark gray lens will absorb 99.9% of UVA and UVB radiation up to 400nm. The dark gray lens tint also provides true color recognition and meets the traffic signal color requirements of ANSI Z80.3-1996. It is suggested as a general purpose sunglass lens for driving and other outdoor activities, where maximum glare protection is needed. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.



## Dark Gray



# Uvex® SCT Orange

Uvex has developed a comprehensive family of task oriented polycarbonate lens tints, employing Spectrum Control Technology (SCT®). This technology incorporates unique dyes, designed to absorb select wavelengths of radiant energy into the lens. These dyes manipulate light to reduce a spectral hazard or to provide distinctive filtration for specific viewing tasks. SCT lenses provide an added value for safety spectacle wearers that encounter visual hazards or viewing challenges in their work environment. While the primary need for eye protection is often impact hazards, many work applications also include radiation hazards including ultraviolet, infrared and visible glare.

In the case of SCT-Orange, the tint is designed for use in the dental industry or in other industries where UV lamps are used for curing materials such as paints or inks. As

the chart below demonstrates, SCT-Orange offers a wide range of spectral protection. It absorbs >99.9% of potentially harmful UVA and UVB radiation. It further provides protection by completely absorbing visible light up to 540nm, which includes violet, blue and certain green wavelengths of light which are emitted by curing lamps.

Another benefit of SCT-Orange relates to eye fatigue. Visible light in the violet and blue areas of the spectrum is not well focused by the eye. When these colors are filtered out, contrast is improved, and the eye finds it easier to see detail. A good example of this is amber sunglasses that are used by pilots and sportsmen to reduce haze and glare. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.

## Suggested For

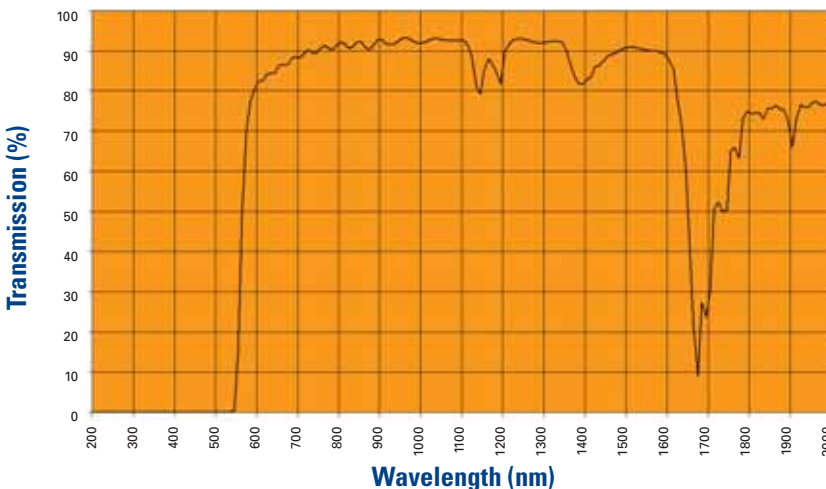
- Dental Hygienists
- UV Cure of Coatings/Inks
- Medical or Academic UV Lamp Applications
- Reduction of Glare in Operations With Blue Light

## Specifications

- VLT = 45%
- UV Absorption = >99.9%
- Blue Light Absorption = >98%
- Color = Orange

**UVEX™**  
by SPERIAN

## SCT-Orange



# Uvex® SCT Vermilion

## Suggested For

- Hospital Operating Rooms
- Inspection Operations
- Meat Packing Industry

## Specifications

- VLT = 55%
- UV Absorption = >99.9%
- Color = Dark Pink

While a primary need for eye protection is often impact hazards, many work applications also include radiation hazards including ultraviolet, infrared, and visible glare.

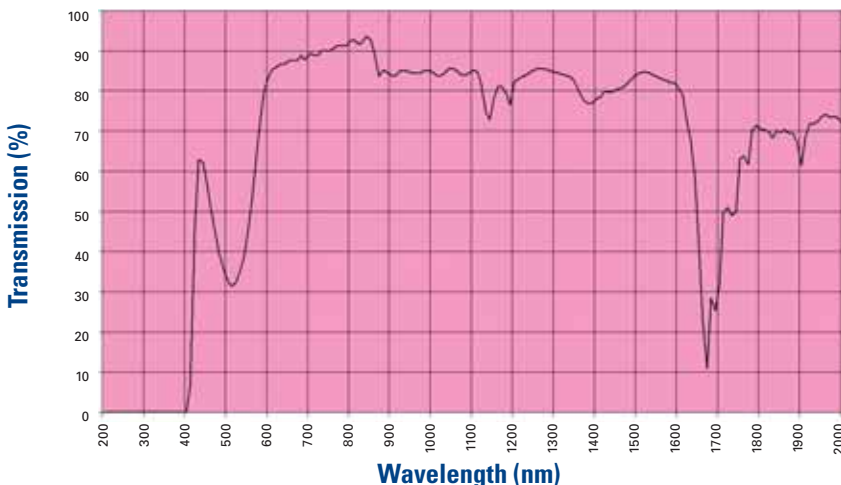
SCT-Vermilion (light pink) lenses are used for indoor applications such as inspection where contrast may need enhancement. These lenses will reduce glare from fluorescent and halogen lighting without compromising color perception. These lenses can also be used to reduce glare in hospital operating rooms where nurses and doctors are exposed to intense, bright lighting. These lenses are not recommended for driving or for use as general purpose eyewear.

The SCT-Vermilion lenses will sharpen visual acuity and provide contrast similar to, but not as dramatic as amber lenses. Workers performing product inspections under fluorescent lighting find these lenses are ideal for detecting

defects. Examples include visual inspection of circuit boards, miniature components, and assembly work. These lenses absorb >99.9% of UVA and UVB radiation up to 400nm. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.



## SCT-Vermilion



# Uvex® SCT Low-IR

Uvex safety has developed a companion lens for its SCT Gray lens, called SCT-LOW IR (infrared). These lenses have a much higher Visible Light Transmittance (VLT) for indoor work applications. The lens is pale green and the VLT is 80%. Uvex SCT-LOW IR lenses filter 99.9% of the ultraviolet radiation, and 40% of the infrared radiation that may be present. IR protection is equivalent to a Shade 1.2 welding lens.\*

There are a number of suggested uses for SCT-LOW IR lenses. This lens tint is ideal for indoor utility work where protection is required from short term electric arcs and the radiation generated when an arc accidentally occurs. UV radiation present is completely absorbed by the lens, as are low levels of IR radiation. Recognition of key colors is not affected.

The low level IR protection also makes this lens a good choice for areas where transient IR or heat is

present. For example, spectacles with SCT-LOW IR lenses are a good choice for use in welding environments, under welding helmets where primary eye protection is required, or for personnel walking through areas adjacent to welding operations. It is also a good choice in applications where furnaces are part of the operation because absorption of IR heat energy will help keep the eye cooler. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.

## Suggested For

- Indoor Utility Work
- Primary Eye Protection Under Welding Helmets
- For Use by Inspectors in or Around Welding Areas
- Furnace Operations

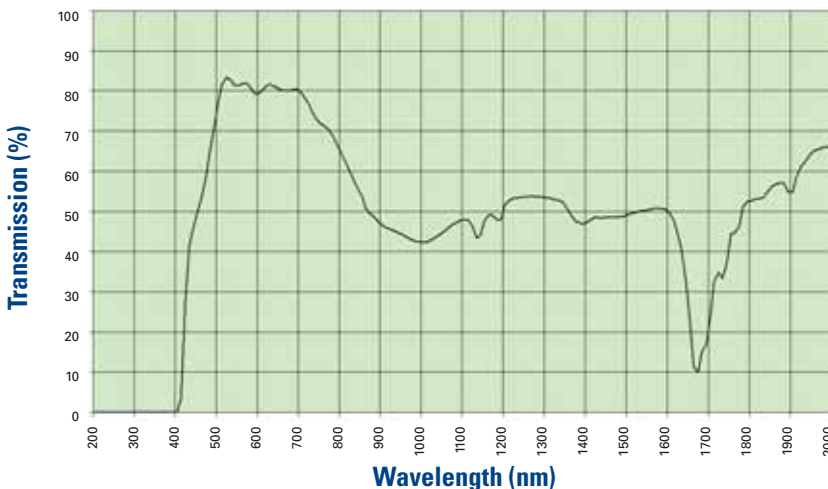
## Specifications

- VLT = 80%
- UV Absorption = >99.9
- IR Absorption = 40%
- Color = Pale Green

\* SCT-Low IR lenses do not meet the Shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.

**UVEX™**  
by SPERIAN

## SCT-Low IR





# Uvex® SCT Gray

## Suggested For

- Outdoor Electrical Utility Work
- Outdoor Telephone Utility Work
- Communications Installation
- General Purpose Sunglass Protection

## Specifications

- VLT = 15%
- UV Absorption = >99.9%
- Blue Light Transmittance = <7%
- IR Absorption = >85%
- Color = Neutral Gray

\* SCT-Gray lenses do not meet the Shade requirements of Table I of ANSI Z87.1-1989 for glare, and should not be used for any type of welding application.

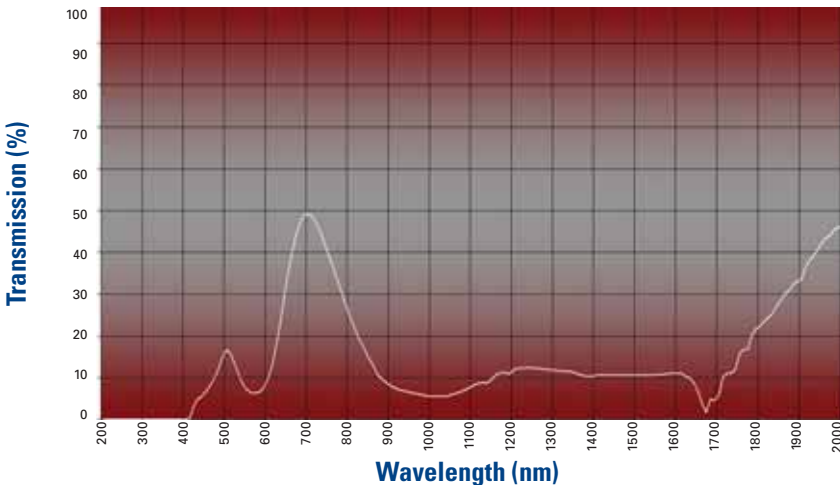
Utility workers can potentially be exposed to the hazard of a short-term electric arc and the intense burst of radiation that results. SCT-Gray lenses are a sunglass tint and are designed to provide broad protection against accidental arcs. They filter 99.9% of the UVA and UVB radiation up to 400nm, 93% of the blue light hazard, and 85% of the infrared (IR) radiation present. IR protection is equivalent a Shade 2.0 welding filter.\*\*

As a sunglass lens, SCT-Gray lenses have a Visible Light Transmittance (VLT) of about 15%. This means 15% of the available light will pass through the lens. While providing the protection above, the lens tint also provides true color recognition. This allows the worker to easily distinguish wire

colors and avoid accidentally confusing colors and crossing wires. Uvex SCT-Gray lenses meet the transmittance and traffic signal color recognition requirements of ANSI Z80.3-1996, and therefore are also suggested as general purpose sunglasses for driving and other outdoor applications. Please see the SCT-Gray transmittance chart below. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.



### SCT-Gray



# Uvex® SCT Blue

Uvex SCT blue lenses were specifically designed for use in work applications where there is high levels of yellow or sodium vapor lighting and glare. These conditions exist in the semi-conductor industry and sometimes in food processing plants. The blue colored lens will counteract the effects of yellow light, to reduce eye strain and fatigue and to improve productivity. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.

## Suggested For

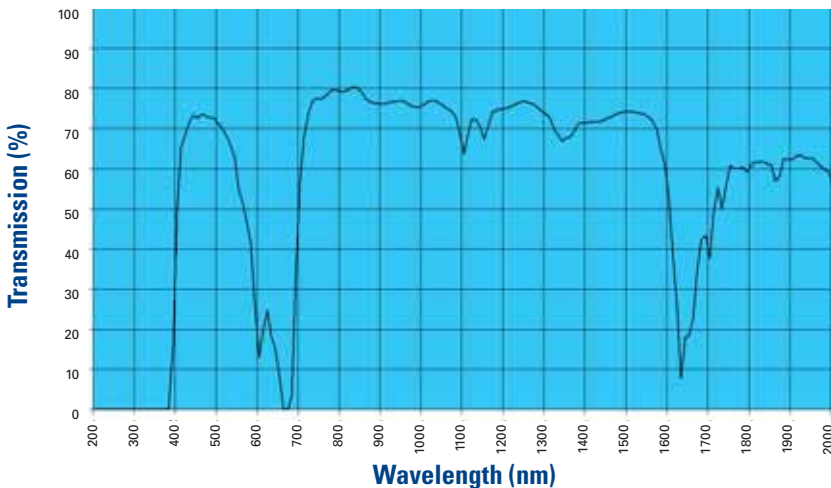
- Semi-Conductor Facilities or any Work Application Using Sodium Vapor Lighting

## Specifications

- VLT = 57%
- UV Absorption = >99.9%
- Color = Blue

**UVEX™**  
by SPERIAN

## SCT-Blue



# Uvex® SCT Cobalt Blue

## Suggested For

- High Heat Applications Such as Furnaces.
- Reduces Glare of Metal or Glass Blowing and Provides Infrared Radiation Protection.

Uvex manufactures a SCT-Cobalt lens tint for high heat furnace, metal work, and glass blowing applications where intense glare causes eyestrain and fatigue. The SCT-Cobalt lens tint is dark blue in color and has a Visible Light Transmittance of about .2%. This means .2% of the available light will pass through the lens. The SCT-Cobalt lens absorbs 99.9% of UVA and UVB radiation up to 400nm, and also filters 75% of incidental IR heat radiation to keep the eye cool. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.

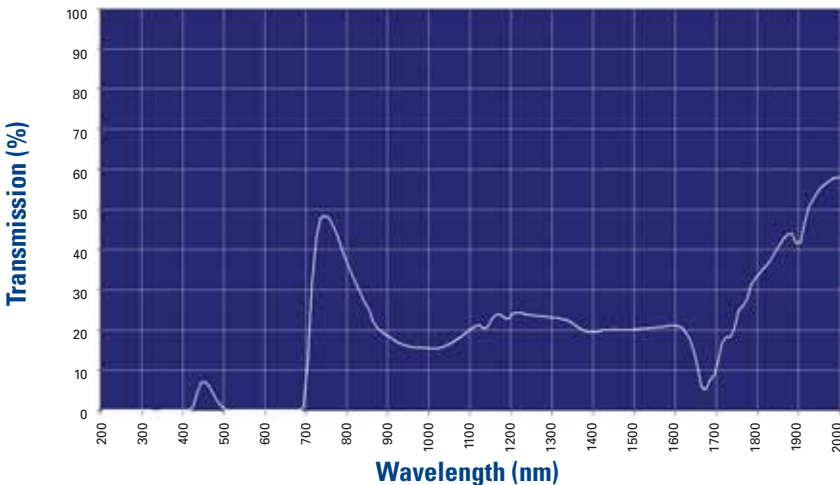
## Specifications

- VLT = .2%
- UV Absorption = >99.9%
- IR Absorption\*\* = 75%
- Color = Dark Blue

\* SCT-Cobalt lenses do not meet the shade requirements of Table I of ANSI Z87.1, and should not be used for any type of welding application.



## SCT-Cobalt



# Uvex® Infra-dura® 2.0

Infra-dura 2.0 lenses are made for certain welding affiliated operations such as torch soldering, as well as a welder's helper lens.

According to ANSI Z87.1, the protective eyewear standard, the filter lenses must comply with the requirements of Table 1. These requirements cover the transmittance ranges or limits for visible, ultraviolet and infrared radiation, as well as blue light suppression, which have been determined to be hazardous. As required by the standard, uvex Infradura lenses are marked with the shade number designation. These lenses should be used solely for the applications described above and should NOT be used as general purpose sunglasses, or for driving as they have reduced levels of light transmittance and will distort traffic signal colors. OSHA requires that

every employer conduct a workplace hazard assessment and based on this survey, provide personal protective equipment that protects against the hazards identified. The ANSI standard contains guidelines for the selection of eyewear styles and shade numbers for particular welding and associated operations. Further information is also available from the American Welding Society at (800) 443-9353. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.

## Suggested For

- Use around Welding Sites
- Torch Soldering

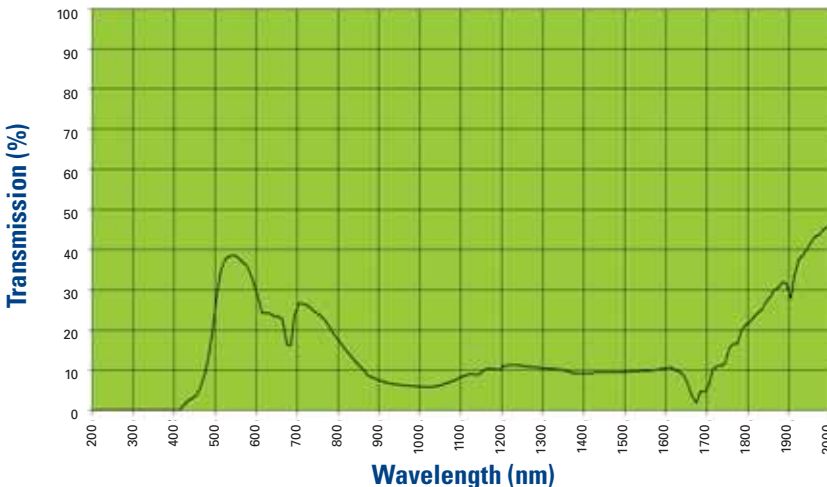
## Specifications

- VLT = 35%
- UV Absorption = >99.9%
- IR Absorption = > 85%
- Color = Green

Consult the selection chart in ANSI Z87.1 for selection of the proper welding shade for specific applications.



## Shade 2.0



# Uvex® Infra-dura® 3.0

## Suggested For

- Use Around Welding Sites
- Brazing and Cutting

## Specifications

- VLT = 14%
- UV Absorption = >99.9%
- IR Absorption = > 91%
- Color = Green

Consult the selection chart in ANSI Z87.1 for selection of the proper welding shade for specific applications.

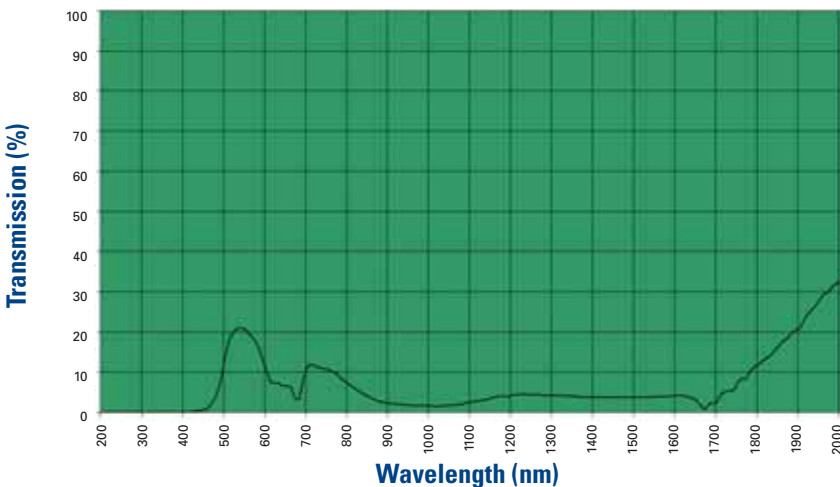
Infra-dura 3.0 lenses are made for certain welding affiliated operations such as torch soldering, torch brazing or cutting operations.

According to ANSI Z87.1, the protective eyewear standard, the filter lenses must comply with the requirements of Table 1. These requirements cover the transmittance ranges or limits for visible, ultraviolet and infrared radiation, as well as blue light suppression, which have been determined to be hazardous. As required by the standard, uvex Infra-dura lenses are marked with the shade number designation. These lenses should be used solely for the applications described above and should NOT be used as general purpose sunglasses, or for driving as they have reduced levels of light transmittance and will distort traffic signal colors. OSHA requires that every employer conduct a workplace hazard assessment and based on this survey, provide personal

protective equipment that protects against the hazards identified. The ANSI standard contains guidelines for the selection of eyewear styles and shade numbers for particular welding and associated operations. Further information is also available from the American Welding Society at (800) 443-9353. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.



## Shade 3.0



# Uvex® Infra-dura® 5.0

Infra-dura 5.0 lenses are made for certain welding affiliated operations such as torch soldering, torch brazing or cutting operations.

According to ANSI Z87.1, the protective eyewear standard, the filter lenses must comply with the requirements of Table 1. These requirements cover the transmittance ranges or limits for visible, ultraviolet and infrared radiation, as well as blue light suppression, which have been determined to be hazardous. As required by the standard, Uvex Infra-dura lenses are marked with the shade number designation. These lenses should be used solely for the applications described above and should NOT be used as general purpose sunglasses, or for driving as they have reduced levels of light transmittance and will distort traffic signal colors. OSHA requires that every employer conduct a workplace hazard assessment and based on this survey, provide personal

protective equipment that protects against the hazards identified. The ANSI standard contains guidelines for the selection of eyewear styles and shade numbers for particular welding and associated operations. Further information is also available from the American Welding Society at (800) 443-9353. As with all personal protective equipment, it is the employer's responsibility to conduct an on-site or workplace hazard assessment.

## Suggested For

- Use around Welding Sites
- Brazing and Cutting

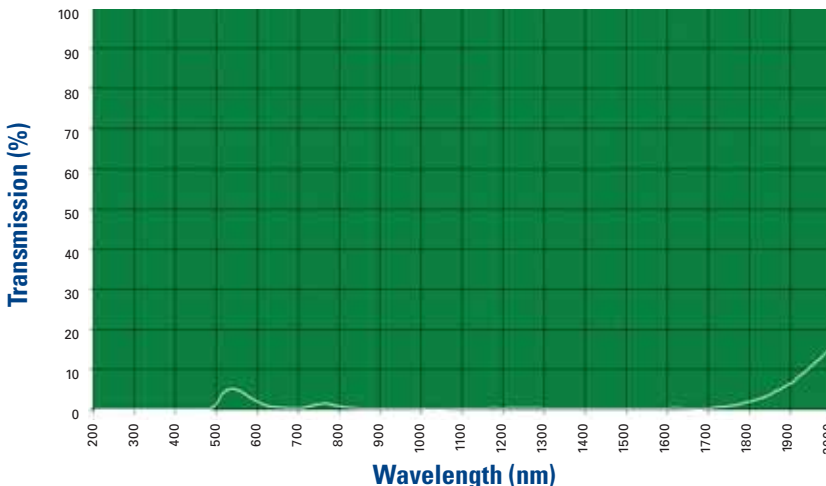
## Specifications

- VLT = 2%
- UV Absorption = >99.9%
- IR Absorption = > 97.5%
- Color = Dark Green

Consult the selection chart in ANSI Z87.1 for selection of the proper welding shade for specific applications.

**UVEX™**  
by SPERIAN

## Shade 5.0



Sperian Protection Americas, Inc.  
900 Douglas Pike  
Smithfield, RI 02917-1874  
(800) 430-5490  
[www.uvex.us](http://www.uvex.us)