R Coating On Eyeglasses

UV coating

ultraviolet radiation that passes through. Common uses of such coating include eyeglasses and automotive windows. Photographic filters remove ultraviolet

A UV coating (or more generally a radiation cured coating) is a surface treatment which either is cured by ultraviolet radiation, or which protects the underlying material from such radiation's harmful effects. They have come to the fore because they are considered environmentally friendly and do not use solvents or produce volatile organic compounds (VOCs), or Hazardous Air Pollutant (HAPs), although some materials used for UV coating, such as PVDF in smart phones and tablets, are known to contain substances harmful to both humans and the environment.

Anti-reflective coating

coating determines the appearance of the coated optic; common AR coatings on eyeglasses and photographic lenses often look somewhat bluish (since they reflect

An antireflective, antiglare or anti-reflection (AR) coating is a type of optical coating applied to the surface of lenses, other optical elements, and photovoltaic cells to reduce reflection. In typical imaging systems, this improves the efficiency since less light is lost due to reflection. In complex systems such as cameras, binoculars, telescopes, and microscopes the reduction in reflections also improves the contrast of the image by elimination of stray light. This is especially important in planetary astronomy. In other applications, the primary benefit is the elimination of the reflection itself, such as a coating on eyeglass lenses that makes the eyes of the wearer more visible to others, or a coating to reduce the glint from a covert viewer's binoculars or telescopic sight.

Many coatings...

Binoculars

in those applications. These are typically mounted on an eyeglass frame or custom-fit onto eyeglasses. An improved image and higher magnification are achieved

Binoculars or field glasses are two refracting telescopes mounted side-by-side and aligned to point in the same direction, allowing the viewer to use both eyes (binocular vision) when viewing distant objects. Most binoculars are sized to be held using both hands, although sizes vary widely from opera glasses to large pedestal-mounted military models.

Unlike a (monocular) telescope, binoculars give users a three-dimensional image: each eyepiece presents a slightly different image to each of the viewer's eyes and the parallax allows the visual cortex to generate an impression of depth.

CD-R

a protective coating of a photo-polymerizable lacquer is applied on top of the metal reflector and cured with UV light. A blank CD-R is not "empty";

CD-R (Compact disc-recordable) is a digital optical disc storage format. A CD-R disc is a compact disc that can only be written once and read arbitrarily many times.

CD-R discs (CD-Rs) are readable by most CD readers manufactured prior to the introduction of CD-R, unlike CD-RW discs.

Paint

Organic Coatings: Science and Technology (3rd ed.). Hoboken, New Jersey, USA: John Wiley & Sons, Inc. p. 5. ISBN 978-0-471-69806-7. Lambourne, R; Strivens

Paint is a material or mixture that, when applied to a solid material and allowed to dry, adds a film-like layer. As art, this is used to create an image or images known as a painting. Paint can be made in many colors and types. Most paints are either oil-based or water-based, and each has distinct characteristics.

Primitive forms of paint were used tens of thousands of years ago in cave paintings.

Clean-up solvents are also different for water-based paint than oil-based paint. Water-based paints and oil-based paints will cure differently based on the outside ambient temperature of the object being painted (such as a house).

Essilor

improvements on technologies. As of September 2012, Essilor has been involved in the Special Olympics for 10 years, providing almost 100,000 free eyeglasses to

Essilor International is a French multinational corporation specialized in the design, manufacture and sale of ophthalmic lenses, optical equipment and instruments. It is the world's largest manufacturer of ophthalmic lenses. Founded in 1972 out of the merger of two French companies operating in the sector, Essel and Silor, it is headquartered in Charenton-le-Pont, near Paris. Since October 2018, it is a subsidiary of EssilorLuxottica which arose out of a merger between Essilor and the Italian eyewear corporation Luxottica.

In January 2017, Essilor announced a merger with Luxottica, in which Essilor would acquire the latter while Luxottica executive chairman Leonardo Del Vecchio would become co-executive chairman of the newly formed holding company, EssilorLuxottica. On 1 October 2018, the...

Sunglasses

around sunglasses that fit over the eyeglasses. Mirrored lenses have a metallic, partially reflective coating on the outer surface combined with a tinted

Sunglasses or sun glasses (informally called shades or sunnies; more names below) are a form of protective eyewear designed primarily to prevent bright sunlight and high-energy visible light from damaging or discomforting the eyes. They can sometimes also function as a visual aid, as variously termed spectacles or glasses exist, featuring lenses that are colored, polarized or darkened. In the early 20th century, they were also known as sun cheaters (cheaters then being an American slang term for glasses).

Since the 1930s, sunglasses have been a popular fashion accessory, especially on the beach.

The American Optometric Association recommends wearing sunglasses that block ultraviolet radiation (UV) whenever a person is in the sunlight to protect the eyes from UV and blue light, which can cause...

Thin film

smart phone cameras. Other examples are given by anti-reflection coatings on eyeglasses or solar panels. Thin films are often deposited to protect an underlying

A thin film is a layer of materials ranging from fractions of a nanometer (monolayer) to several micrometers in thickness. The controlled synthesis of materials as thin films (a process referred to as deposition) is a fundamental step in many applications. A familiar example is the household mirror, which typically has a thin metal coating on the back of a sheet of glass to form a reflective interface. The process of silvering was once commonly used to produce mirrors, while more recently the metal layer is deposited using techniques such as sputtering. Advances in thin film deposition techniques during the 20th century have enabled a wide range of technological breakthroughs in areas such as magnetic recording media, electronic semiconductor devices, integrated passive devices, light-emitting...

Telescopic sight

it is difficult to keep the stock steady. Eye relief is important for eyeglasses wearers, as the presence of an eyeglass in front of the eye shortens the

A telescopic sight, commonly called a scope informally, is an optical sighting device based on a refracting telescope. It is equipped with some form of a referencing pattern – known as a reticle – mounted in a focally appropriate position in its optical system to provide an accurate point of aim. Telescopic sights are used with all types of systems that require magnification in addition to reliable visual aiming, as opposed to non-magnifying iron sights, reflector (reflex) sights, holographic sights or laser sights, and are most commonly found on long-barrel firearms, particularly rifles, usually via a scope mount. Similar devices are also found on other platforms such as artillery, tanks and even aircraft. The optical components may be combined with optoelectronics to add night vision or smart...

3D display

the same screen through different polarizing filters. The viewer wears eyeglasses which also contain a pair of polarizing filters oriented differently

A 3D display is a display device capable of conveying depth to the viewer. Many 3D displays are stereoscopic displays, which produce a basic 3D effect by means of stereopsis, but can cause eye strain and visual fatigue. Newer 3D displays such as holographic and light field displays produce a more realistic 3D effect by combining stereopsis and accurate focal length for the displayed content. Newer 3D displays in this manner cause less visual fatigue than classical stereoscopic displays.

As of 2021, the most common type of 3D display is a stereoscopic display, which is the type of display used in almost all virtual reality equipment. 3D displays can be near-eye displays like in VR headsets, or they can be in a device further away from the eyes like a 3D-enabled mobile device or 3D movie theater...