

## NEOTHERM/INFRAZOR - certified welding protection glass

### Features

Our glass provides protection against harmful ultraviolet (UV-) and infrared (IR-) radiation. The UV radiation causes chemical changes of the cornea on the retina. Already the UV radiation with a wavelength below 320 nm causes chemical changes in the cornea, the eye lens and on the retina. Radiation below 320 nm causes conjunctivitis, while long-wave UV radiation in the eye produces fluorescence that results in decreased visual performance. In the range of 300 nm and shorter wavelengths, the UV radiation endangers the skin and kills bacteria. The most harmful UV radiation for people is in the range of wavelengths around 260 nm, because the UV radiation is absorbed by nucleonic acids in the cell nucleus. The cells die and neoplasms are formed. The UV radiation endangers the skin down to the depth of 0.6 mm, the eyelids and eye surface and then cell tissue swells. The IR radiation causes thermal changes in the cornea, in the eye lens and on the retina and it causes cataracts. Our SCS Welding Protective Glasses provide sufficient protection against the above mentioned harmful radiation and allow safe vision with 560 to 565 nm wavelengths in bright light, exactly within the limits of the maximum sensitivity of the human eye.

Uncoated SCS Welding Protection Glass is a blue-green flat glass with protection levels from 2 to 15 available.

Mirrored SCS welding protection glass has been additionally coated with a well-adhering metal layer and reflects the heat radiation, which would be absorbed by an uncoated SCS glass. Therefore the heating of the coated glass is lower. Color and transmission values are not changed by the mirroring.

Quality product from the Czech Republic with „Made in European Union“ and 0196 CE DIN certification from CERTCO in Aalen/Germany.

Each SCS welding protection glass is marked with an identification mark. It includes the protection level, the manufacturer „s mark, the class of the dioptric effect (class 1) and the trade mark DIN, e.g. 10 SCS 1 DIN (10 protection level, SCS manufacturer mark SCS, 1 class of the dioptric effect, DIN mark DIN).

The right-angled panes are packed in acid-free paper or in plastic foil, depends on customer requirements. Each filter and each packet are provided with identification marks. Packaging in wrapping paper can be replaced by the packaging into small boxes. Round glasses and shaped glasses are packed in small boxes of 50 pieces.

### Environments / Applications

SCS welding protection glass is used for light flame cutting, brazing and hard welding, MIG, MAG, TIG, plasma methods. The mirrored glass additionally reflects part of the infrared radiation. It is mainly recommended when welding in closed cabins and / or when using extreme amperages. Which protection level is suitable for each method can be found at our separate data sheet.

### Variants

Welding protection glasses are produced in round or rectangular versions in protection levels 2 to 15, mirrored in protection levels 5-15. Round glasses are available with diameters between 30-75 mm.

Delivery of molded glasses for different eyeglasses are also possible.

Standard dimensions are 105x50 mm, 108x51 mm, 110x60 mm, 110x90 mm, DIA 50 mm,

In addition, we can cut individual dimensions from panels up to 1.050x900 mm.

The protection levels 2 to 13 have the glass thickness of 2.7 +/-0.3 mm, protection levels 14 and 15 have the glass thickness 3.0 +/-0.3 mm.

### Cleaning and care

The cleaning can be done with water, spirit and with commercial dishwashing liquids. The lifetime of the glass is limited by the breakage. To prevent contamination by flying metal drops during welding, the SCS welding protection glass can be protected with an additional cover glass. During the lifetime, protective properties remain unchanged.

# Infrazor/ Neotherm

## Ofenschauglas Furnace observation glass

### Infrarotschutzfilter

Infrazor und Neotherm sind geeignete Glasfilter (Ofenschauglas) für die Betrachtung von feuerflüssigen Stoffen bei Schmelzvorgängen in Gießereien, Stahlwerken, Glaswerken, Porzellanwerken, usw. beim Schmelzen oder bei der Wärmebehandlung höherer Temperaturen. Der Filter gewährleistet den notwendigen Schutz gegen schädliche Strahlung und gleichzeitig bietet er das fachgerechte Erkennen und Beurteilen von Schmelzvorgängen in dem Ofen.

### Anti-Infrared Radiance Screen

Glassfilters „Infrazor“ and „Neotherm“ protect eyes properly when gazing into furnaces and / or thermo-devices in foundries steelworks, glasworks, ceramic plants and similar facilities, during process of melting or high temperature thermo-processing. The screen provides worker with proper protection that prevents his eyes against harmful radiance and ensures perfect discriminability of details in a furnace.

Der Filter absorbiert die schädlichen Infrarotstrahlen im Spektralbereich 780-2000 nm und Strahlung im UV Bereich. Infrazor wird in den Schutzstufen 2-7 in klassischer Ausführung und in den Schutzstufen 4-8 mit wärmeabweisender Spiegelschicht für den Arbeitstemperaturbereich 1290°C - 1800 °C produziert.\* Bei der Verwendung von verspiegelten Gläsern ist die Glaserhitzen stark reduziert und dadurch auch die sekundäre Strahlung auf den Anwender. Infrazor ist zertifiziert nach CSN EN 166 und CSN EN 171 vom Forschungsinstitut für Arbeitsschutz in Prag.

**Neotherm und Infrazor sind ausschließlich für Ofenschauzwecke bestimmt und dürfen nicht zum Schweißen verwendet werden!**

\* außerdem ist Neotherm 4-6 (SCHOTT AG) verfügbar.

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Pape Schweißprodukte GmbH



Schutzstufe Protective grade (PG)	Glasdicke (mm) Glass thickness (mm)	Strahlungstemperatur (°C) Temperature of radiance (°C)
2	1,6 - 2,2	1100
2,5	1,6 - 2,2	1140
3	1,6 - 2,2	1210
4	1,7 - 2,3	1290
5	2,2 - 2,8	1390
6	2,3 - 2,9	1500
7	2,2 - 2,8	1650
8	2,3 - 2,9	1800

Verfügbare Schutzstufen/ available shades:  
Infrazor standard PG 2 to 6/ Infrazor metallized PG 4 to 8

Lieferbare Größen/ sizes available

120 x 60 mm      110 x 90 mm      50 mm rund/ round

max. Abmessung/ max. dimension: 700 x 300 mm

andere Abmessungen auf Anfrage/ other dimensions on request

The screen absorbs harmful infrared radiance in the range from 780 to 2000 nm and UV radiance. „Infrazor“ screens are manufactured either standardly (protective grades 2 to 6) or reflexive metallized layer (protective grades 4 to 8) used for temperature range from 1.290 to 1.800 °C.\*\* When using the metallized screen, the glass is heated to a limited extent and heat effects user much less as well. The certification of glass screen was executed by Vyzkumny ustav bezpecnosti prace, Praha in accordance with CSN EN 166 and CSN EN 171.

*Infrazor and Neotherm can be used only for furnace observation purposes and not for welding.*

\*\* also Neotherm 4-6 (SCHOTT AG) is available