# **Eye Protection**

PORTWEST eye protection range includes spectacles, safety goggles and visors, designed to protect the eyes and face of the workers from injuries which may occur during working activities.

TECHNICAL SPECTACLES: High performance and cutting edge styles. SPORT SPECTACLES: Light weight and modern design. CLASSIC SPECTACLES: Essential PPE safety eyewear styles.



EN 166 Markings	Lens / 1.	"No.	Spectacho	Goggles	Drs
MANUFACTURER SYMBOL	Ler	Frai	Spe	ŝ	Visors
PW: Portwest	×	~	~	~	~
OPTICAL CLASS		_			
1: Permanent wear (distortion free)					
2: Occasional wear	×		<b>~</b>	<b>~</b>	<b>~</b>
3: Brief wear					
MECHANICAL RESISTANCE					
S: Minimal impact resistance (5,1 m/sec)			<b>~</b>	<ul> <li>Image: A second s</li></ul>	~
F: Low energy impact (45 m/sec)	_		<b>~</b>	<ul> <li>Image: A second s</li></ul>	<b>~</b>
B: Medium energy impact (120 m/sec)	<b>~</b>	<b>~</b>		<b>~</b>	<b>~</b>
A: High energy impact (190 m/sec)	_				<b>~</b>
T: Impact test at extreme temperature (-5°C/+55°C) OPTIONAL			<b>~</b>	<b>~</b>	~
CHEMICAL RISKS (OPTIONAL)			2 <b>0</b>		
3: Resistance to liquids droplets				<b>~</b>	
3: Resistance to liquid splashes					<b>~</b>
4: Resistance to large dust particles (with $> 5\mu m$ grain size)	×	×		~	
5: Resistance to gases and fine dust particles (with $<5\mu m$ grain size)				~	
ELECTRICAL RISKS (OPTIONAL)					
8: Short circuit ARC resistance		<b>~</b>			<b>~</b>
THERMAL RISKS (OPTIONAL)					
9: Molten metal splashes and hot solids projections		<b>~</b>			<ul> <li>✓</li> </ul>
LENS TREATMENTS (OPTIONAL)					
K: Resistance to surface damage by fine particles (anti-scratch treatment)					
N: Resistance to fogging of oculars (anti-fog treatment)	<b>`</b>				

NOTE: It is possible to have surface treatments which are not marked on the lens. These are non-certified treatments, which give the same protection to the lens for an extended period of use:

S = K AS = Anti-Scratch treatment (corresponds to K):

ch esponds AF = Anti-Fog treatment (corresponds to N).

### Lens Shade / Applications

	$\bigcirc$	<b>Clear:</b> General purpose lens for use in good visibility conditions, especially indoor.				
_	•	Amber/Yellow: Enhanced contrast. Ideal for low light environments, artificially lit areas, foggy and cloudy weather.				
		Smoke/Grey: Ideal for sunlight and outdoor.				
		Polarized:				

Stops horizontal reflections, eliminating glare. Ideal for outdoor, driving and around water.

If the lens is also tested according to EN 170 (UV FILTERS) or EN 172 (SUN FILTERS FOR INDUSTRIAL USE) it is also marked with a code-scale nr. Example: clear lens (EN 170) are normally marked with 2C-1.2; Smoke lens (EN 172) are mostly marked with code-scale nr 5-3.1. These nr indicate the % of visible light which can pass through the lens, so how clear/smoke is the lens.



European Standard, applying to all types of individual protection of the eye which protects from hazards likely to damage the eye, except for nuclear radiation, x-rays, laser emissions and infrared emitted by low-temperature sources. Does not apply to eye protection for which separate standards exist (e.g. anti-laser eye protection, sunglasses for general use).

### EN 170: 2002 UV Rays Protection

**European Standard for Ultraviolet Filters** Specifications of level numbers and of requirements relating to the transmittance of the filters for protection against ultraviolet radiation.

#### EN 172: 1995

#### Specification For Sunglare Filters Used In Personal Eye-Protection For Industrial Use

Specification of level numbers and requirements relating to the transmittance of filters for protection against solar radiation, industrial use.

#### EN 175: 1997

#### Welding Eyes and Face Protectors European Standard for equipment for eye and face protection during welding and allied processes

Specifications for the safety requirements for eye and face protection equipment used to protect the operator's eyes and face against harmful optical radiation and other specific risks or hazards in usual welding, cutting or similar operations.

#### EN 169: 2002

### Personal Eye Protection - Filters for Welding

#### European Standard for Filters for Welding and Related Techniques — Transmittance requirements and recommended use.

Specifications of level numbers and requirements relating to the transmittance of filters to protect operators for welding and related techniques. Specification of requirements for welding filters with double dial number of levels.

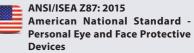
#### EN 1731 2006

### Personal Eye Protection. Mesh Eye and Face Protector.

Material specifications, design, performance and test methods for eye and face mesh protectors, for professional use.

#### EN 379: 2009 Automatic Welding Filters

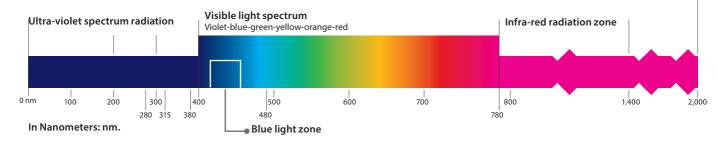
Harmonised European standard for automatic welding filters which switch their luminous transmittance to a lower predetermined value when an arc is ignited.



This standard provides minimum general requirements, test method, selection, use and maintenance of eye and face protection devices. 2 levels of protection:

Z87 marking = "Basic Impact" Z87+ marking = "High Impact"

RISKS TO THE EYE FROM HARMFUL RADIATIONS							
Zone	Wave Length	Environment	Eyesight damage				
UV-A	215 - 380 nm	Outdoor work	Eye fatigue, Partial Blindness, Cataract, Sunshine				
UV-B	280 - 315 nm	Sunlight, Industrial environment,	Cataract, Welder flash, Arc Flash				
UV-C	100 - 280 nm	Industrial environment, Arc welding	Cornea or Crystalline Lesions, Loss of eyesight				
Blue light	400 - 480 nm	Industrial environment Computer work, Outdoor work	Retinal lesions, Loss of eyesight, Blurring degeneration (age), Retinitis pigmentosis				
Infra-red	780 - 1400 nm 1400 - 2000 nm	Electric welding, Molten work: glassmaking, steel production Micro-wave processes , Sunlight	Retinal lesions, Blurring degeneration (age), Retinitis pigmentosis Cornea or Crystalline Lesions				



ACCESSORIES

## Keep Your Lenses Clean and Safe



### O Spectacle Cord

Elasticated cord which adjusts to wearer's preference. Universal holder to fit a large variety of spectacles temples.

90% Nylon, 10% Rubber



### Spectacle Bag

Protective microfibre bag that can be used for cleaning and storage.







### **PA01** Lens Cleaning Towelettes

Towelette Dispenser comes completely assembled and ready for use. Dispenser 5"x 8" holds 100 individually packaged lens cleaning towelettes.

100 towelettes per box

10





10

### Lens Cleaning Station

Lens Cleaning Station provide instant access for all lens cleaning needs. Tissues are low-lint and non-abrasive. Good for use on plastic, glass and polycarbonate lenses.

237ml Anti-fog, Anti-static Solution and 600 tissues per box





## **Lens Cleaning and Storage Solutions** 527



528 Combining Sports Inspired Designs with Advanced Protection



## Dynamic High-Tech Safety Spectacles 529



### **Comfort, Protection and Style**









### Vultus Spectacle

These stylish wrap around safety glasses offer extreme coverage, with brow guard and side shields.





**EYE PROTECTION** 

Can be worn over

and dust masks

prescription glasses



Slim Safety Goggle

EN 1661B 3 4 EN 170 2C-1.2



Extremely lightweight premium goggle. Manufactured from a high tech material, combining hard and soft components to ensure a perfect fit. Wrap around design and effective seal around the eyes.





Ultra Vista Goggle Unvented

EN 166 1 BT 3 4 5 K N EN 170 2C-1.2

Non-vented premium level goggle. Excellent protection against large dust particles, fine dust particles, gas and liquid splashes. Excelled when tested for high impact resistance and extreme temperatures (ranging from -5°C to +55°C). Can be worn with prescription glasses.

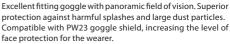
Compatible with the PW23 shield, increasing the level of face protection for the wearer.







Ultra Vista Goggle EN 166 1 BT 3 EN 170 2C-1.2







<sup>534</sup> Superior Protection with Panoramic Vision





## **PW22**

### Challenger Goggle

EN 170 2C-1.2 ANSI/ISEA Z87

Wide panoramic UV protective lens treated with anti scratch and anti fog coating, for long-lasting performance. The special shape of the lens allow it to be worn with prescription glasses and disposable dust masks. Improved design with a larger elastic band for optimized comfort. Indirect ventilation.







### Portwest Chemical Goggle

PS21 is an indirect ventilation goggle with acetate lens material, suitable for chemical use. Superior anti-fog treatment (marked N on the lens) and ultra soft frame ensure a comfortable wear for long working days.

Cellulose Acetate, PVC, PP





## Indirect Vent Goggle

EN 166 1B 3 ANSI/ISEA Z87

Designed to be worn in a tough work environment, this goggle is fitted with a flexible PVC frame for ultra light and comfortable wear. Indirect Ventilation.







### Direct Vent Goggle

EN 166 1 B ANSI/ISEA Z87 +

Designed to be worn in a tough work environment, this goggle is fitted with a flexible PVC frame for ultra light and comfortable wear. Direct Ventilation.





## **Excellent Fit with Maximum Ventilation** 535

#### Arc Flash Visor Class 2



EN 1661B83 EN 170 2C-1.4 GS-ET-29 CLASS 2 8-2-1 ASTM F2178 12 CAL / CM<sup>2</sup> NFPA° 70E PPE CATEGORY

PS91 Arc Flash Visor Class 2 is arc protection Class 2 and VLT Class 1 product. It exceeds the highest arc flash protection according to GS-ET-29 and E DIN 58118 and is designed to maximise colour perception and visible light transmittance. It has a universal slot adapter for hard hats, a large permanently attached chin protector and a light green moulded injected visor with anti-fog coating. Recommended to be used only on hard hats approved for arc flash protection.

Polycarbonate Green One Size



## **Protects Against Electric Arc Flash**

PS5

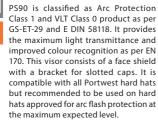


CE CAT

#### Arc Flash Visor Class 1 EN 166 1 B 8 3



EN 170 2C-1.2 GS-ET-29 CLASS 1 8-1-0









## *Reduce the Damaging Effects of Electric Arc* 537

NEW

FR55 162

NEV

**VISORS** 

### **Total Protection from High Speed Particles**







Mesh visor with PP browguard, suitable

particles. The ratchet adjustment system is designed for easy use. Replacement visor Galvanised Carbon Steel, Polypropylene

Visor size: 20 X 40cm

Polycarbonate Clear Visor size: 20 X 40cm

538



**Replacement Mesh** Visor EN 1731 F

Replacement visor for PW93. It also fits PW58.

Galvanised Carbon Steel, Polypropylene Black Visor size: 20 X 40cm

### PW96 **Face Shield Plus** EN 166 1 BT 3 9



24

C E 140 MM

This face shield protects against molten metal splashes and hot solid projections. Superior front and side face protection. Ratchet adjustment for comfort fit. Replacement visor available (PW99).



Polycarbonate, Aluminium Clear Visor size: 20 X 40cm

### PW99

### Replacement **Shield Plus Visor** EN 166 1 BT 3 9 ANSI/ISEA Z87 Replacement visor for

PW96. It also fits PW58.

Polycarbonate, Aluminium Clear Visor size: 20 X 40cm