COBALT BLUE HARD HAT CLIP-ON FOUNDRY EYEWEAR

PRODUCT INFORMATION

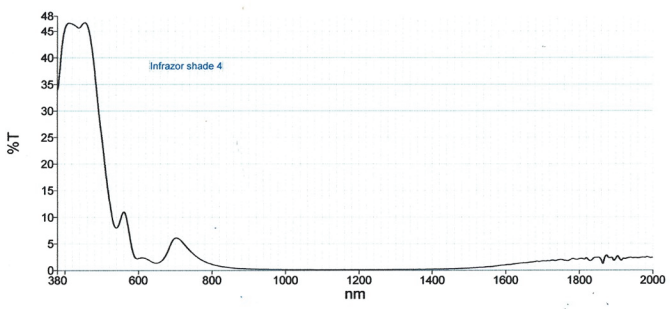
PHILLIPS-SAFETY.COM

PHILLIPS SAFETY
PRODUCTS INC.

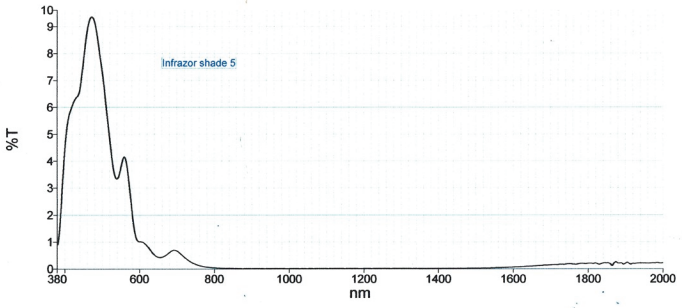
WELDING PROTECTIVE EYEWEAR

LENS FILTER SPECIFICATIONS

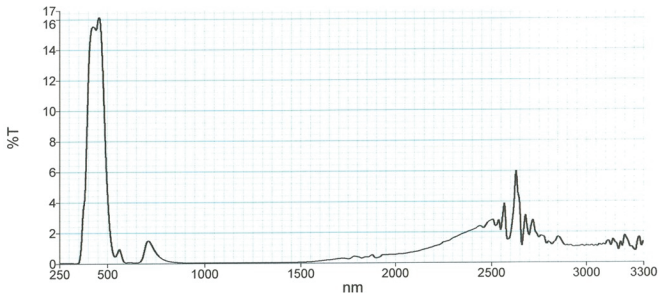
COBALT BLUE SHADE 4



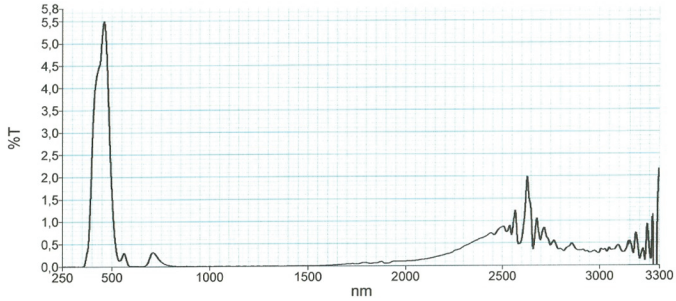
COBALT BLUE SHADE 5



COBALT BLUE SHADE 6



COBALT BLUE SHADE 8



This is to certify that our product listed above meets all Safety Requirements as specified by ANSI Z87.1 and is manufactured to the tolerances required by law. This filter has been tested and conforms to OSHA standards for Welding protection. They are manufactured by Phillips Safety Products, Inc. in the City of Middlesex, County of Middlesec, and State of New Jersey in the United Stated of America. All components and final assemblies are included and originate from our location at 123 Lincoln Boulevard, Middlesex, NJ 08846.

Any questions from interested parties can be directed to the undersigned below.

Ryan Phillips | Vice President | Phillips Safety Products, Inc.

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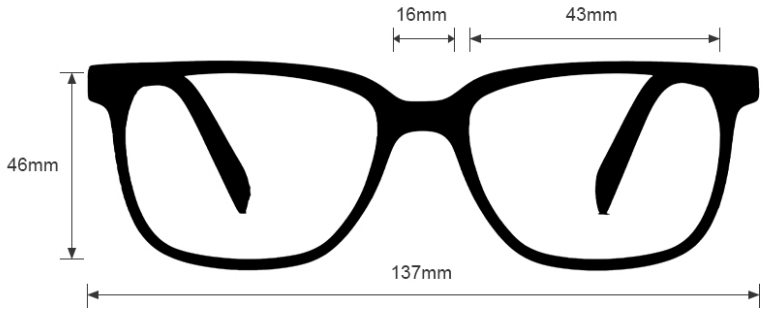
PRODUCT INFORMATION
COBALT BLUE HARD HAT CLIP-ON FOUNDRY EYEWEAR

The Cobalt Blue Hard Hat Clip-On Foundry is a polycarbonate clip-on featuring glass lenses with torching-protective qualities. This lightweight clip-on was designed to fit onto any hard hat or bump cap brim and to be worn in conjunction with your existing safety eyewear. It is available in four different shades: 4.0, 5.0, 6.0, and 8.0. For easy and practical use, this clip-on features a flip-up mechanism that is quickly flipped down to enhance your vision, and then flip back up when not needed. In addition, it features a gooseneck mechanism for easy raising and lowering of the lenses, and the resistant polycarbonate frame can withstand high temperatures. The Cobalt Blue Hard Hat Clip-On Foundry is recommended for uses with welding, torching, metal cutting, and observation of molten metals. Please note that the hard hat is not included with the clip-on.

FRAME SPECIFICATION



AVAILABLE SHADES

- COBALT BLUE SHADE 4
- COBALT BLUE SHADE 5
- COBALT BLUE SHADE 6
- COBALT BLUE SHADE 8

OSHA® FactSheet

Eye Protection against Radiant Energy during Welding and Cutting in Shipyard Employment

Electromagnetic energy given off by an arc or flame can injure workers' eyes and is commonly referred to as radiant energy or light radiation. For protection from radiant energy, workers must use personal protective equipment, such as safety glasses, goggles, welding helmets, or welding face shields. This equipment must have filter lenses with a shade number that provides the appropriate level of protection. A shade number indicates the intensity of light radiation that is allowed to pass through a filter lens to one's eyes. Therefore, the higher the shade number, the darker the filter and the less light radiation that will pass through the lens.

This requirement applies to the employees performing the work and to personnel observing the operation; for example, a fire watch or an assistant. The tables below list the minimum protective lens shade numbers for commonly used welding and cutting processes.

When a worker wears eyewear equipped with filter lenses under a welding helmet, the shade number of the lens in the helmet may be reduced. The combined shade numbers of the lenses in the eyewear and helmet should equal the value shown in the tables below (see 29 CFR 1915.153(a)(4) and ANSI Z49.1:2005 *Safety in Welding, Cutting, and Allied Processes*). In addition, all protective eye and face devices must comply with ANSI Z87.1, *Practice for Occupational and Educational Eye and Face Protection* (see 29 CFR 1915.153(b)) for the selection, use and maintenance of these protective devices.

When there is a potential for objects to fly in workers' eyes and face, the protective device(s) selected must provide side protection. Side protection reduces the risks of hazards such as slag chips, grinding fragments and grinding bristles contacting a worker's eyes and face. Where such hazards exist, workers using a welding helmet with filter lenses would also need to wear glasses with side shields or goggles.

Table 1: Filter Lenses for Protection during Shielded Metal Arc Welding

Operation	Electrode Size – inch (mm)	Arc Current (Amperes)	OSHA Minimum Protective Shade Number	ANSI & AWS Shade Number Recommendations*
Shielded Metal Arc Welding (SMAW)	Less than 3/32 (2.4)	Fewer than 60	7	-
	3/32-5/32 (2.4-4.0)	60-160	8	10
	More than 5/32-1/4 (4.0-6.4)	More than 160-250	10	12
	More than 1/4 (6.4)	More than 250-550	11	14

Table 2: Filter Lenses for Gas Welding and Oxygen Cutting Operations

Operation	Plate Thickness Inches	Plate Thickness mm	OSHA Minimum Protective Shade Number	ANSI & AWS Shade Number Recommendations*
Gas Welding	Under 1/8	Under 3.2	4	5
	1/4 to 1/2	3.2 to 12.7	5	6
	Over 1/2	Over 12.7	6	8
Oxygen Cutting	Under 1	Under 25	3	4
	1 to 6	25 to 150	4	5
	Over 6	Over 150	5	6

Table 3: Filter Lenses for Protection during Other Welding and Cutting Operations

Operation	Arc Current (Amperes)	OSHA Minimum Protective Shade Number	ANSI & AWS Shade Number Recommendations*
Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW)	Fewer than 60	7	-
	60-160	10	11
	More than 160-250	10	12
	More than 250-500	10	14
Gas Tungsten Arc Welding (GTAW)	Fewer than 50	8	10
	50-150	8	12
	More than 150-500	10	14
Air Carbon Arc Cutting (CAC-A) (Light)	Fewer than 500	10	12
Air Carbon Arc Cutting (CAC-A) (Heavy)	500-1000	11	14
Plasma Arc Welding (PAW)	Fewer than 20	6	6-8
	20-100	8	10
	More than 100-400	10	12
	More than 400-800	11	14
Plasma Arc Cutting (PAC) (Light)**	Fewer than 300	8	9
Plasma Arc Cutting (PAC) (Medium)**	300-400	9	12
Plasma Arc Cutting (PAC) (Heavy)**	More than 400-800	10	14
Torch Brazing (TB)		3	3 or 4
Torch Soldering (TS)		2	2
Carbon Arc Welding (CAW)		14	14

* *As a rule of thumb, start with a shade that is too dark to see the weld zone. Then, go to a lighter shade which gives a sufficient view of the weld zone without going below the minimum.* During oxygen gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light (spectrum) of the operation.

** Values apply where the actual arc is clearly seen. Lighter filters may be used when the arc is hidden by the workpiece.

For More Information:

- CPL 02-01-049 - 29 CFR Part 1915, Subpart I, Enforcement Guidance for Personal Protective Equipment in Shipyard Employment
- OSHA Publication 3151 (2003), Personal Protective Equipment

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.

U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

DSG FS-3499 1/2012

CONTACT

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please do not hesitate to contact us.

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