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TUFFAK® WC (Welding Curtain) FAQ's

WHAT IS TUFFAK WC POLYCARBONATE?

TUFFAK WC sheet is a tinted, transparent, impact resistant polycarbonate sheet product designed for welding curtain and screen applications. The sheet protects spectator's eyes from intense and harmful light emitted during gas and arc welding activities and is also designed to resist flying sparks. The sheets can as well be used in applications requiring UV light blocking applications such as screens in tanning salons and intense sunlit areas (marina and winter resort locations).

CAN TUFFAK WC BE USED AS A FACE SHIELD?

No. TUFFAK WC is designed specifically for use as a welding screen to protect spectators from harmful welding light. Welders in close proximity to the welding process require special dark lenses meeting ANSI Z87.1 Shade 1 thru 15 depending upon the type of welding activity. Instead, welding screens are typically used by welders who must perform welding tasks in the vicinity of other workers. Using a welding screen will reduce the amount of dangerous UV and blue light that other workers are exposed to when welding is being performed.

WHAT WELDING STANDARDS DOES TUFFAK WC SHEETS MEET?

TUFFAK WC sheets are compliant to AWS F2.3M:2011 Specification for Use and Performance of Transparent Welding Curtains and Screens for light transmission properties.

HOW CLOSE CAN A SPECTATOR BE TO THE WELDING PROCESS AND STILL BE PROTECTED?

TUFFAK WC sheet is to be placed a minimum distance of 1 meter from the welding process to offer appropriate protection per the AWS F2.3M:2011 specification.

DOES TUFFAK WC COME IN DIFFERENT COLORS?

Yes, TUFFAK WC is available in four attractive tints and light transmission shades (Light, Medium, and Dark). All TUFFAK WC colors block the harmful UV light as well as hazardous blue-light, a common cause of "welder arc-eye".

- Bright Yellow 62% LT (Light)
- Golden Amber 17% LT (Medium)
- Ruby Red 19% LT (Medium)
- Dark Green 5% LT (Dark)

WHICH COLOR DO I CHOOSE?

All TUFFAK WC products meet the AWS F2.3M:2011 standard so the end user is responsible for deciding which tint and transmission level they would like to use. Darker tints are often used when providing protection for more intense light-generating welding processes such as arc/mig/tig welding.

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WHAT IS WELDER ARC-EYE?

Welder arc-eye is caused by blue light given off during welding applications which can lead to temporary or permanent blindness due to scarring of the eye's retina. The eye is especially sensitive to blue light which is emitted in the region of 400 - 500nm wavelength.

WHAT IS "WELDER'S FLASH" OR "ARC EYE"?

Eye flash burn can occur when you are exposed to bright ultraviolet (UV) light. It can be caused by all types of UV light sources, but bright light from welding applications are one common source which is why it's sometimes called 'welder's flash' or 'arc eye'. Flash burns are like sunburn in the eye and can affect both eyes. Symptoms can appear any time from 3-12 hours after overexposure to UV light. Pain can be mild to severe along with symptoms of bloodshot eyes, light sensitivity, excessive tearing and blurred vision.

ARE TUFFAK WC SHEETS HARD TO SET UP?

Welding screens can be easily setup and deployed in a manufacturing facility to shield personnel from arc flash welding. They can be moved quickly and configured in different designs to form portable welding screens on wheels as well as fixed T-stand partitions to concealed work areas. TUFFAK WC can also be used as a welding protected wall generally covering larger areas where it is not feasible to use smaller portable welding screens. Framing is typically performed using lightweight aluminum "H" and "U" profile channels.

CAN TUFFAK WC SHEETS BE USED TO BLOCK UV AND LOW VISABLE LIGHT WAVELENGTHS IN AN UV-LED LIGHT CURING PROCESS?

Yes. All grades of TUFFAK WC effectively block UV light below 400nm and blue visible light in the 400-500nm range. Since UV-LED adhesives typical cure at 365nm, 385nm and 395nm, TUFFAK WC would successfully block these wavelengths, more so than standard UV blocking polycarbonate. Therefore, TUFFAK WC would make an excellent safety shield for eye protection in these photosensitive adhesive curing applications.

WHAT ARE TUFFAK WC's GAUGE RANGE AND SHEET SIZE?

TUFFAK WC are typically stocked in 48"x96", 0.118" thick sheets. Other thicknesses, up to 0.236", and run to order sizes are available upon request with a minimum order quantity.

WHERE CAN I FIND MORE INFORMATION ON TUFFAK WC?

Additional information can be obtained by visiting the links below or at www.plaskolite.com.

[TUFFAK WC DATASHEET](#)

[TUFFAK WC PRODUCT INFORMATION](#)

[TUFFAK WC LITERATURE](#)

[TUFFAK POLYCARBONATE SDS](#)

[TUFFAK POLYCARBONATE FABRICATION GUIDE](#)

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DOES TUFFAK WC SHEETS COME WITH A WARRANTY?

Yes, TUFFAK WC sheets are offered with a five (5) year Limited Product Warranty against breakage. The terms of the warranty are available upon request.

HOW DO I CLEAN TUFFAK® WC POLYCARBONATE SHEET?

The best way to clean TUFFAK polycarbonate sheet is to use mild dishwashing soap and warm water with a soft microfiber or cotton cloth, followed by a lukewarm water rinse. Do not scrub the panel as PC has a soft surface which will lead to fine line scratches if scrubbed too hard. For detailed information, please refer to the cleaning instructions for polycarbonate located at www.plaskolite.com under Resources.

HOW DO I CUT TUFFAK WC POLYCARBONATE SHEETS?

TUFFAK® polycarbonate sheet can be cut using conventional carpentry tools. For best results use sharp cutting tools and minimize vibration of the material. For specific instructions on cutting polycarbonate, please refer to the TUFFAK® Fabrication Guide www.plaskolite.com under Resources.

CAN TUFFAK® WC SHEETS BE BENT OR CURVED?

Yes. Frequently referred as “cold bending”, a non-hard coated product such as TUFFAK® WC sheets can be cold-bent to a minimum radius based upon 100 times the sheet’s thickness: ($R=T \times 100$). For example, a 4’x8’ panel at 0.118” thickness can be cold radiused to 11.8” and 0.236” can be radiused to 23.6”. The sheets can also be break bent with a press.

CAN TUFFAK® SHEETS BE THERMOFORMED?

No. Thermoforming TUFFAK WC stretches and thins the sheet altering its certified light blocking properties.