TECHNICAL DATA SHEET: FIRE-RATED DIVIDERS

Product Series: Envirazone Screenflex Industrial PVC

Organization: Envirazone

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1. FIRE PERFORMANCE & FLAMMABILITY STANDARDS

When utilizing Screenflex as a full-height workshop divider or fire-rated curtain, the material's ability to resist ignition and prevent the spread of flame is the primary safety requirement.

- **EN 1598 Compliance:** Envirazone screens are certified as **self-extinguishing** under the EN 1598 mandate.
- **Flame Mitigation:** In the event of an accident where the screen is struck by a high-intensity arc or molten spatter, the material will not support a flame or contribute to a flash fire once the heat source is removed.
- **Weld Spatter Solution:** The surface chemistry is specifically treated to resist "pitting" from molten sparks.
- **Structural Integrity:** Molten metal is designed to bounce off the surface rather than melt through the barrier, maintaining the physical integrity of the fire-rated divider.
- **Low-Emission Chemistry:** During extreme heat exposure, the material is engineered to minimize outgassing, ensuring that breathable air remains within safe limits when supported by standard workshop ventilation.

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2. OPTICAL SAFETY STANDARDS FOR DIVIDERS

Workshop dividers must protect personnel in general traffic areas from accidental exposure to welding arcs. Envirazone Screenflex solves this through rigorous spectral control.

- **ISO 25980 (Global Standard):** Envirazone screens solve the compliance gap for large-scale dividers by meeting all metrics of ISO 25980.
- **Radiation Neutralization:** This standard ensures that anyone on the "cold" side of a divider is 100% protected from hazardous non-ionizing radiation.
- **UV Blockage (>99.9%):** Our screens block radiation between 100nm and 400nm, effectively neutralizing the primary cause of **Photokeratitis** (Welder's Flash) for everyone in the facility.
- **Retinal Protection (AWS F2.3M):** Large dividers must manage the "Blue Light" hazard function to ensure total safety.
- **Pigmentation Engineering:** By meeting the American Welding Society AWS F2.3M specification, our screens utilize specific pigments to absorb high-energy wavelengths (400nm–500nm) that cause cumulative, permanent retinal damage.

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3. ENGINEERING DATA FOR LARGE-SCALE INSTALLATION

For full-height workshop partitions, the mechanical properties of the material must support the structural load and environmental pressures of a large facility.

Material Mass & Stability

Envirazone Screenflex possesses a high density of **1.22 g/cm³**, providing the mass required for a "steady-state" drape. This density prevents "blow-back" from powerful air extraction (LEV) systems or internal building drafts.

Format	Thickness	Width	Mass-per-Meter
Large Format Curtain	0.4 mm	1370 mm	**0.67 kg/m**
Standard Strip Divider	2.0 mm	200 mm	**0.49 kg/m**
Heavy-Duty Bay Divider	3.0 mm	300 mm	**1.10 kg/m**

Mechanical Durability Specs

- **Acoustic Insulation (>35 dB):** Large workshop dividers act as a noise barrier, isolating the high-frequency hiss of welding arcs and plasma cutting from the rest of the facility.

- **Thermal Barrier (0.16 W/m.K):** Screenflex solves the issue of heat bleed by containing thermal energy within the welding bay, improving the efficiency of local exhaust ventilation systems.
- **Tensile Strength (~17 MPa):** This high strength ensures that large dividers do not tear if accidentally struck by machinery or forklifts.

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4. OPERATIONAL EXCELLENCE: OPTICAL CLASS 1

Envirazone workshop dividers are manufactured to the **Optical Class 1** rating to ensure visual performance.

- **Distortion-Free Monitoring:** This solves the problem of eye strain for supervisors or safety officers who must monitor work through the screen.
- **Visual Safety:** Class 1 rating ensures that visibility is never sacrificed for safety, providing a clear, true-to-life view of the workspace.

Envirazone Technical Support

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