Coosa Fire Rated Panels

Fiber-Reinforced Structural Foam Panel

COOSA COMPOSITES



DESCRIPTION

The high-density, fiberglass-reinforced polyurethane foam material in a Coosa Fire-Rated Composite panel has a higher resistance to flame spread than traditional plywood. Our fire-rated composite boards undergo rigorous testing and certification processes to ensure they meet or exceed industry standards for fire resistance. With certifications from leading authorities, you can trust that our products have been thoroughly evaluated and approved for their exceptional fire-resistant properties.

Dimensions: 1220mm x 2440mm up to 1520mm x 3050mm
Thicknesses: 6.4mm up to 38.1mm
Densities: 240.3kg/m^3, up to 416.5kg/m^3

ADVANTAGES OF FIRE RATED PANELS

While our standard composite panels meet the FMVSS 302 fire standard for motor vehicles, our Fire-Rated panels take safety to the next level by meeting the more rigorous **ASTM E84 Class A** regulation, which requires a much higher standard for flame spread and smoke generation.

Coosa's Fire-Rated panels meeting this standard are an innovative offering to markets that require this extra level of protection against flame spread. If you need a high-density, fiberglass-reinforced polyurethane foam panel that meets **ASTM E84 Class A** standards, our Fire-rated panel could be the right solution.

CUSTOMER PROCESSES

- *Contact molding (hand/spray)*
- *Resin infusion / injection (VARTM / RTM)*
- *Adhesive bonding*
- *Pre-preg*
- *Press / compression molding*

APPLICATIONS

- **Marine:** Floors, bulkheads, stringers, engine beds, interiors, tooling and molds
- **Road and Rail:** Floors, sidewalls, roofs, engine covers, interior panels
- **Industrial:** Covers, tanks, containers, floors, platforms, tooling and molds
- **Building & Construction:** Concrete forms, substrates for fascia, tub and shower enclosures, architectural design elements

Coosa Fire-Rated panels are available in Bluewater and Nautical series.

MADE IN USA

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CHARACTERISTICS

- *Non-absorbent*
- *Lightweight and strong*
- *Strong chemical resistance*
- *High flexural strength and stiffness*
- *Compatible with a wide range of resins and adhesives*
- *High shear and compression properties*
- *Dimensionally stable*
- *Mold and mildew resistant*

MECHANICAL PROPERTIES

Typical properties for Fire Rated panels		Unit (metric)	Nautical 24	Bluewater 26
Density	ASTM C-271 ISO-845	kg/m^3	385	420
Core Compressive (Strength)	ASTM C-365 ISO-844	MPa	6.14	4.42
Core Compressive (Modulus)	ASTM C-365 ISO-844	MPa	251	263
Core Shear (Strength)	ASTM C-273 ISO 1922	MPa	3.86	2.95
Core Shear (Modulus)	ASTM C-273 ISO 1922	MPa	147	143

All properties evaluated on 19mm rigid sheet; other thickness will have similar performance based on that specific sheet density. Flexural testing support span ratio 16:1.

COOSA ASTM E84 TEST

Panel	Test	Test Date	Flame Spread Index	Coosa Test Results Flame Spread	Smoke Developed Index	Coosa Test Results Smoke Developed
Bluewater	ASTM E84 – 23	September 23, 2023	≤25	10	≤450	300
Nautical	ASTM E84 – 23	September 23, 2023	≤25	5	≤450	250

The high-density, fiberglass-reinforced polyurethane foam materials in a Coosa Composite panel have a higher resistance to flame spread than traditional plywood. A traditional plywood sub-floor will spread flames considerably farther than Coosa **ASTM E-84 Class A** approved panels in the same amount of time.

Important! The information and data presented herein are based upon information reasonably available to Coosa Composites Holdings, LLC from independent testing labs at the time of publication and are presented in good faith, but are not to be construed as guarantees or warranties, express or implied, regarding performance, results to be obtained from use, comprehensiveness, and merchantability. You should thoroughly test any application, and independently determine satisfactory performance before commercialization or use.

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