LAMINATORS
Composite Panel Solutions

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INFERNOSHIELD™
Technical Data Sheet

PRODUCT: InfernoShield™

EFFECTIVE: November 1, 2022

Description: InfernoShield™ is an insulated glazing panel that consists of a calcium silicate composition core bonded on both sides to a thermoplastic stabilizer with a texture/color finished sheet of aluminum on each face. Panels are intended for use in window, glazing, and curtain wall systems.

Properties:

Thickness	1 in (nom), standard
Weight	2.77 psf (+/-), standard
Core	Calcium Silicate Composition (based on xonotlite mineral) 18.0 pcf density
Stabilizers	Extruded Profile Polypropylene
Sheets (ASTM B209)	3003-H14/24; 3105-H14/24 & H26/28; 5005-H34 Aluminum 0.012 to 0.032 in
Texture Finish	Smooth or Stucco-Embossed
Color Finish (AAMA 2605)	PVDF/Kynar 500®, Polyester, or Anodized
Thermal Expansion	13.1×10^{-6} in/in/°F

Performance:

R-Value [1] (ASTM C518)	2.14 hr °F ft^2 / BTU
Fire Performance [2] (ASTM E84)	Class A Flame Spread Index (FSI) = 0 Smoke Developed Index (SDI) = 55

Allowable Load-Carrying Capacities (R_n / Ω): [3,4,5,6]

0.027 to 0.032 in Sheets

Panel Span (in) [7]	≤ 36	42	48	54	60
Wind Load (psf) [8]	60	60	50	35	30

Notes:
1. R-Value for 1 in (nom) standard panel based on ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus performed by independent laboratory per ASHRAE 90.1-2010.
2. Surface-burning characteristics are applicable to exterior conditions only and are not applicable to interior conditions.
3. Based on testing performed in conjunction with ASTM E529 Standard Guide for Conducting Flexural Tests on Beams and Girders for Building Construction.

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4. Capacities are calculated for a 1 in (nom) standard panel with Calcium Silicate Composition core, actual sheet thickness, and double-sided typical construction (matching sheet thickness on each face).
5. Capacities are governed by the Aluminum Design Manual (ADM) using a Factor of Safety = 1.65 for yield strength.
6. Project-specific Components and Cladding wind loads (Required Strength, Ra) shall not exceed Available Load-Carrying Capacities (Allowable Strength, Rn / Ω) for given spans. Wind loads are to be calculated per ASCE/SEI 7 Minimum Design Loads for Buildings and Other Structures.
7. Panel Span applies to shortest dimension of finished panel.
8. Strength conditions govern for given capacities; therefore, International Building Code (IBC) deflection limits have been met. Capacities are capped at values shown but are higher for spans less than indicated. Contact Laminators Technical Support if higher capacities are required.