

Blazeguard® is an exceptionally durable fire resistant structural building panel. Fire resistance is provided by a tough, thin layer of inert, inorganic material. Blazeguard's performance features include:

Fire: Exceeds the most stringent flame-spread rating required by building codes with a flame spread index of 5, and the flame front advance of less than 9' after 30 minutes. Meets Class A (1) flame-spread requirements.

Blazeguard in 7/16" OSB thickness provides a 15-minute thermal barrier for plastic insulations. One-hour and two-hour assemblies using Blazeguard are listed by a code-recognized independent laboratory.

Strength: Stronger than the panel selected as substrate. The fire retardant shield does not reduce panel strength, but actually increases it.

Smoke: Develops only a small fraction of the amount allowed by building codes. For example, compared to the smoke-developed index limit of 450, Blazeguard has a smoke-developed index of 40 or less.

Corrosion: Blazeguard will not promote corrosion of nails, staples, or screws.

Permeability: Blazeguard's breathable fire shield will not promote rot by trapping moisture in the wood.

Durability: The fire shield is factory applied to plywood, OSB, or particle board substrates using Barrier's proprietary process. Under normal construction and application conditions, the shield will not flake, crack, or peel. It has more resistance to abrasion than uncovered wood.

Applications: Use Blazeguard for: structural roof and wall sheathing; as the thermal barrier for structural foam core panels; siding; sub flooring; shelving; ceiling; wall paneling; partitions; and storage containers. Also recommended for all types of construction where fire protection is a design requirement or desired in order to decrease insurance premiums.

Workability: Can be cut, drilled, nailed, and stapled using common carpentry tools.

Products: Blazeguard is available in two product types:

Plywood: Proprietary high strength shield factory applied to one or both faces of any standard thickness and size.

OSB: Proprietary high strength shield factory applied to one or both faces of any standard thickness of OSB, up to 8' x 24' in size.

Chemical/Biological: Blazeguard contains inorganic material that inhibits the growth of fungus and molds. It is resistant to reaction with common solvents, fuels, and lubricants.

Finishing/Special: Blazeguard can be painted for use as wall paneling in corridors or other exposed surfaces. For continuous exposure to weather, CCA treated plywood can be provided as an alternative substrate for added protection against rot and decay.

Environmental: Blazeguard's fire shield is a clean and safe inorganic compound. It is not hazardous or toxic and does not contain or use harmful or environmentally unsound chemicals in its manufacture. Disposal of trim scrap is by ordinary trash disposal methods. Toxicity tests show that Blazeguard releases fumes that are less toxic than plain wood under fire conditions.

Packaging/Handling: Blazeguard is shipped protected from the elements. Procedures for handling on the job site are the same as those for traditional structural wood panels.

Testing: Blazeguard has been extensively tested. Independent laboratories verified all results. Intertek/Omega Point Laboratories provides product listing services, which include unannounced quarterly audits and periodic follow-up testing.

Blazeguard meets or exceeds the requirement set by local, county, and state building codes and insurance underwriters and rating bureaus.

Availability: Panel Unit Sizes

Blazeguard Plywood Substrate (4' x 8')

Thickness	Panel/Unit
15/32"	63
19/32"	53
23/32"	45

Blazeguard OSB Substrate (4' x 8')

Thickness	Panel/Unit
7/16"	60
15/32"	56
19/32"	53
23/32"	45



Testing Summary

Test Specifications	Property	Results
ASTM E-84 (extended to 30 minutes)	Flame Spread	FSI=5, SDI = 40, Maximum Progressive Advance (30 min) = 7.5 ft for DFPW
APA F-4	Adhesion Shield	Pass
MIL-L 19140 E	Corrosion	No contribution to metal corrosion, 0.069-0.138 mils/year for brass, 0.00 mils/yr for both steel and aluminum
ASTM G-53	Weathering (1000 hrs.)	No deterioration
ASTM D-2247	Weathering (500 hrs.)	No deterioration
ASTM D-1037	Accelerated Aging – Bending Test	No deterioration of strength after 56 days in 170° F, 65% RH Chamber. MOR: (psi x 1000) Blazeguard/DFPW = 4,240, OSB = 4,960
ASTM D-2794	Impact Resistance	Pass – slight indent @ 160 lbs
ASTM D-790	Bending Strength	MOR (psi x 1,000): Pyrotite (MD) = 6.97, Pyrotite (XD) = 5.98 MOE (psi x 1,000,000): Pyrotite (MD) = 1.27, Pyrotite (XD) = 1.25
Special Protocol	Nail Penetration	No wood exposed
Special Protocol	Microbial/Fungal Growth	Pyrotite appears to be more resistant to microbial/fungal attacks than untreated wood products
Combustion Toxicity Test	Pittsburgh Smoke Toxic Potency	The toxic potency is equal to or less than untreated plywood, LC50 = 17.7 & 67.3 grams
ASTM D-2898	Weathering Exterior (1,680 hrs.)	After D-2898 procedure, ASTM R-84 extended for 30 minutes resulted in FSI = 5, SDI = 20
Freeze/Thaw	Soak 48 hrs., Freeze at -40°F for 8 hrs., then subject to ASTM D-1037 impact test	No brittleness effect at cold temperatures or failure due to freezing
Outdoor Storage of Blazeguard	Warp and Swell over 90 Days	Incremental warp less than 3/8", no swell compared to unlaminated controls
ASTM D-2898 Modified	Accelerated Weathering of Blazeguard on Trusses	No measurable warping of Blazeguard after 96 hrs. of rain followed by drying (one cycle) for 12 cycles (2,304 hrs.). Suitable for exterior applications
ASTM E-96	Permeability	Passes Vapor, > 3 perms
ASTM E-119	One-Hour Fire Resistance Assembly (Structural)	Listed assemblies include both T-11 Blazeguard siding and pre-finished aluminum surface Blazeguard
ASTM E-119	Two-Hour Fire Resistance Assembly (Structural)	Listed assembly using Blazeguard fire-rated structural sheathing
ASTM E-1119/UBC 17-3 and UBC 17-5	15-Minute Thermal Barrier	Listed as a thermal barrier. Blazeguard substrate = 7/16" OSB

