

TECHNICAL DATA SHEET

Product Description

ColdDragon SF is a one-component (1K) water-based intumescent coating designed for wood products such as lumber, OSB panels, and plywood. Its white, opaque finish covers the substrate to protect it and acts as a thermal barrier, thanks to its intumescent properties that expand when exposed to heat.

Application on Wood

ColdDragon SF is a Class A flame-retardant solution, certified under CAN/ULC S-102 and ASTM E-84 for the protection of lumber, OSB panels, and plywood, commonly used in residential and commercial construction in Canada. To comply with certification specifications, the required application of ColdDragon SF on wood is 12 to 15 mils wet film thickness (WFT) or 6 to 8 mils dry film thickness (DFT).

- Low VOC content
- Water-based coating
- Low-odor product
- Easy to apply
- White, opaque finish
- Class A fire retardant
- Intumescent action
- Thermal barrier

Properties Table

Technology: Water-Based Intumescent - Solvent-Free	Viscosity: 120-130 ku
Dry Appearance: Opaque White	pH: 8
Solids by Weight: 54.6 %	VOC Content: < 46.8 g / L
Solids by Volume: 43 %	Ignition Time (seconds): 233.187
Density: 1.27 g/cm ³	Maximum Flame Spread (mm): 0.31

Application Data

Coverage: 137 square feet / US gallon (12 mils WFT)	Touch Dry: 45 minutes @ 21°C (70°F)
Application temperature: 15-30°C (59-86°F)	Complete Cure: 24 hours @ 21°C (70°F)
Application Humidity: 30-65 %	Preparation: Mechanical Drill Mixer (5 minutes)
Freeze Resistant: No - Store above 7°C (45°F)	Cleaning: Warm Soapy Water
Application: Airless Sprayer, Brush, Roller	Shelf Life : 12 months

Certifications

CAN/ULC S-102	Class A (≤25 FSI)	≤450 SDI	Intertek	Spec ID 64518
ASTM E-84	Class A (≤25 FSI)	≤450 SDI	Intertek	Spec ID 64518



TECHNICAL DATA SHEET

ColdDragon – Tests & Certifications for Technical Specification

ColdDragon is a certified flame-retardant coating designed for wood, offering effective protection against flame spread and smoke development. Engineered to meet Class A fire safety standards, it provides flame resistance and smoke control.

It is the responsibility of the client, applicator, or end user to ensure that the product complies with the specific requirements of their project, including applicable municipal, local, or national Building Codes and regulations governing flame-retardant materials. Validation should be based on the product's certifications and test results, and approval must be obtained from a qualified authority, such as an architect or engineer. The following certifications and tests have been conducted to assess flame spread index and smoke development index.

CAN/ULC S-102
Class A - Certified
Flame Spread Index : 0
Smoke Development : 55

Intertek Coquitlam Fire Laboratory (2024)

CAN/ULC S-102-18 Intertek 105861149COQ-004 R0
09 96 43 Flame Retardant Coatings



Applied to wood at 12 mils wet film thickness (WFT), or 6 mils dry film thickness (DFT).
Tested on SPF 2x Dimensional Lumber.
Rated for Coated Side Only

CAN/ULC S-102
Class A - Tested
Flame Spread Index : 5
Smoke Development : 60

Intertek Coquitlam Fire Laboratory (2024)

CAN/ULC S-102-18 Intertek 105969066COQ-001
09 96 43 Flame Retardant Coatings



Applied to wood at 15 mils wet film thickness (WFT), or 8 mils dry film thickness (DFT).
Tested on 3/4" OSB panels.
Rated for Coated Side Only

ASTM E-84
Class A - Certified
Flame Spread Index : 5
Smoke Development : 85

Intertek Coquitlam Fire Laboratory (2024)

ASTM E-84-23 Intertek 105861149COQ-003 R1
09 96 43 Flame Retardant Coatings



Applied to wood at 12 mils wet film thickness (WFT), or 6 mils dry film thickness (DFT).
Tested on SPF 2x Dimensional Lumber.
Rated for Coated Side Only