

INCA[®]

DC333

Intumescent Fireproof Paint

DC333 For Use on Wood , Gypsum (DryWall), and OSB

Approvals:

UL Listed:	Life Safety Code 101
UL 723:	Class A (0 Flame/ 10 Smoke)
ASTM E119:	One Hour on Plywood Assembly
ASTM E119:	Non-Rated Gypsum Assembly to One Hour Rating
ASTM E84:	Equivalent to use in place of Fire Retardant Treated Wood (FRTW)

- ✓ Water Base
- ✓ 300 sq. ft. per Gallon as Class A
- ✓ Non-Toxic
- ✓ Hypoallergenic
- ✓ Non-Carcinogenic
- ✓ Passed Strict EPA – V.O.C. and AQMD
- ✓ Spray, Roll, or Brush
- ✓ Compatible with any paintable surface

Do a couple of minutes really make that much of a difference? YES!

A typical house fire doubles in size every 30 seconds. Using these figures a small trash can fire will grow over 1000 sq. ft. in 5 minutes. Needless to say, time is of the essence!!!

RATE OF FIRE SIZE GROWTH											
TIME	0:00	0:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00
SIZE	1	2	4	8	16	32	64	128	256	512	1024
*Time in minutes/Size in square feet											

Smoke is the leading cause of death in fires. Adults and children can die in less than 60 seconds from the amount of smoke created from a typical fire. DC333 is proven to reduce fire spread , and dramatically reduce smoke up to 80% , allowing you extra precious time to escape.

DC333 Characteristics:

Finish:	Flat
Packaging:	5 Gallon Pails
Colors:	Off White
V.O.C.:	56 g/l



Quick Reference Application Guide

Spraying DC333 for Maximum Yield: If this is the first time using DC333 we suggest testing a pre-measured area to get a feel for spraying and yield. If the job requires 16 wet mils or 100 sq. ft. per gallon, than a 5 gallon pail would cover 500 sq. ft. Measure out one or two 500 sq. ft. sections using pieces of tape, thumbtacks, or canned spray paint. Use just enough to outline the area you intend to apply DC333. We suggest spraying inside the outlined area and taking wet film thickness measurements, with a wet film gauge across the area, to get a feel for maximum yield.

WET Film Thickness	Sq. Ft. Per One Gallon	Sq. Ft. Per Five Gallon
4 WFT	400 Sq. Ft.	2000 Sq. Ft.
16 WFT	100 Sq. Ft.	500 Sq. Ft.
8 WFT	200 Sq. Ft.	1000 Sq. Ft.

Temperature: PROTECT FROM FREEZING DURING SHIPMENT AND STORAGE. DC333 is water based coating which will freeze and become unusable at temperatures below 0°C. **Do Not** store material at temperatures below 10°C. **Do Not Apply** DC333 when ambient air and substrate temperatures fall below 10°C. Store DC333 at 10°C to 28°C at all times.

Humidity: Humidity at 65% or higher requires fans to circulate the air for proper curing. High humidity may require a longer curing time. Relative humidity is harder to measure than temperature, but it plays an equally important role in how well DC333 cures. Ideal conditions are 50-65% relative humidity. Curing times are significantly affected when humidity levels exceed 70%. Low relative humidity can also be a problem, because DC333 may dry too quickly and lead to blistering on the surface. This is less common in cooler temperatures. Blistering happens more often when there is too much wind, which can dry DC333 too quickly, causing dust deposits and other particles to settle on the surface.

Ventilation: Please see humidity and temperature guidelines above. We recommend running fans to circulate the air during all applications especially in high or low humidity. In most cases free air movement across the surface will suffice. It is important that the fans do not blow directly onto the DC333 coated surfaces before or after application, this may cause the paint to dry too fast resulting in cracking or delamination. Fans should be used to move air in and out of the work space.

Freezing: It's also important that air temperatures do not drop below freezing conditions in the work space the first night after DC333 coating has been applied. Curing paint can still contain moisture that will crystallize in sub-freezing temperatures instead of evaporating out into the atmosphere as it is designed to do. If temperatures do drop, you won't see a problem until the following spring. Moisture will remain hidden in some surfaces over the winter and then migrate into the paint under a warm spring sun, which may form blisters or delamination.

Surface Preparation: All surfaces to be coated must be clean, cured, firm, dry and free of dust, dirt, oil, wax, grease, mildew, and efflorescence. The quality of any application is only as good as the surface preparation that precedes the application. Our coating has excellent bonding characteristics and will adhere to most sound, clean, surfaces. Verify that the surface is free of gouges, holes. Also verify the surface is stable, and not deteriorated. If any such defects are found make sure to repair them prior to proceeding.

Material Preparation: DC333 must be thoroughly mixed before application. Failure to do so will seriously compromise the coating's ability to perform. It is recommended to perform mechanical stirring with a high speed drill and a paddle appropriate for the size container you are working from. Contents should be stirred from the bottom up making sure to scrape the bottom and sides with a paint stick as you go. Contents should be stirred to a creamy consistency with no lumps. Continue mixing for 4-5 minutes per 5 gallon pail. Thinning is usually not needed. If DC333 has been exposed to high heat, water may evaporate from the plastic 5 gallon container. If the paint level is below 3 inches from the top of the container, add enough water to bring the level back up to within 3 inches from the top in order to ensure proper consistency.

Application Equipment: DC333 is best applied with an airless sprayer to achieve a more consistent mil thickness. In challenging areas where an airless sprayer is not practical, DC333 can be applied by brush or roller.

- **Brush:** Use top quality polyester/nylon blend brushes, such as those supplied by Purdy, Wooster, or equivalent
- **Roller:** Use a 3/8" polyester blend nap roller, which will generally work well when applying DC333

DC333 VISCOSITY: DC333 is a variable viscosity coating. When you open DC333 the unmixed viscosity will be approximately 30,000 – 35,000 CPS. After mixing for five minutes the viscosity will drop 15,000 CPS to approximately 20,000 CPS. If viscosity is still too high you can add 8 ounce of water per 5 gallon pail and mix to reduce the viscosity by 4000 – 5000 CPS.

Coverage: DC333 MUST BE THOROUGHLY MIXED FOR 5 MINUTES PRIOR TO APPLICATION WITH A MECHANICAL MIXER

Check appropriate test report or ESR for required wet film thickness (WFT) and gallon per square coverage. For example, if the wet film thickness (WFT) required is 18 mils, the coverage will be 89 sq. ft. per gallon.

Curing: Fans should be used to circulate air for the first 24 hours of curing. Do not blow air directly on coating.

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Testing

Facility	Testing Standard	Protocol	Time/Test Results	Coverage Rate
Intertek	ASTM E 84-08 30 minutes extended with exterior top coat	Surface Burning, California Urban Wildland Interface, NFPA 703 Standard for FRTW	Flame 0 / Smoke 20	100 sq. ft. per gal
International Carbide	ASTM E 119 Internal Test Report,	Vertical wall 1/2" Stud / Gypsum Assembly	1 Hour / Passed	60 sq. ft. per gal
International Carbide	ASTM E119 Internal Test	Fire Endurance and Hose Stream / Plywood	1 Hour / Passed	40 sq. ft. per gal
Intertek	CAN/ULC S101	Fire Endurance Thermal Barrier	15 Minutes / Passed	110 sq. ft. per gal
Intertek	CAN/ULC S102	Surface Burning	Flame 0 / Smoke 25	
Accugen Laboratories Inc.	ASTM D 5590	Mold and Fungal Resistance Test	Mold Resistant	
Wecks Labs.	EPA AQMD VOC	VOC Emission	56 g/L	
CSIST Fire Research Labs	NES 713	Toxicity During Combustion	Non Toxic	
UL	UL 723	Surface Burning	Flame 5 Smoke 10	100 sq. ft. per gal
UL	UL 723	Surface Burning	Flame 10 Smoke 25	200 sq. ft. per gal

Uses Elementary, Intermediate, High School, Colleges, Nursing Homes, Hospitals, Child Care Centers, Penal Institutions, Apartments, Hotels, Factories, Warehouses, Utilities, Businesses, Retail Stores, Restaurants, Railroad, Other Transportation Companies, Military Installations, Other Government Facilities.