



# DC5040 Intumescent Coating

## Description

DC5040 is a water based thin film intumescent coating used to provide fire resistance to engineered wood framing members such as I-Joists. Applied to the I-Joist only, once the components are installed, DC5040 provides equivalence to the 2-by-10-dimension lumber prescribed in Section R302.13, Exception 4 of the 2015 IRC® and Section R501.3, Exception 4 of the 2012 IRC®.

DC5040 has been fire tested in accordance with a full-scale ASTM E-119 and meets IAPMO UES Acceptance Criteria EC017 for Field-Applied Fire Protective Coatings.

**Other coatings testing requires the BOTH the I-Joists and the sub floor to be coated. DC5040's superior performance is tested, as a single coat, applied to the I-Joist only. Subfloors can add up to 50% more surface area to be coated, DC5040 maximizes yield, reduces labor and provides a cost effective solution to meeting IRC Code requirements.**

## DC5040 Tested Solutions for Fire Protection of Engineered Wood Products

- Full Scale ASTM E119 Fire Tested
- Meets IAPMO UES EC017 Acceptance Criteria For Field Applied Fire Protective Coatings UES ER-568
- Meets Section A4.4 Fire Testing of ICC-ES AC14 Acceptance Criteria of Prefabricated I-Joists
- DC5040 is a topical coating with a neutral pH, applied without pressure or soaking, and does not contain chemicals that are detrimental to wood or engineered wood products.
- Tested useful life, fire resistance is not compromised for at least 50 years
- Passed strict EPA – V.O.C. and AQMD air emission requirements (for all 50 states)
- 3rd Party Tested, Intertek Listed and Inspected
- Single Coat Coverage applied to I-Joists only reducing labor costs equaling higher profits
- Passed CDPH/EHLB/Standard Method V1.2, 2017 (CA Section 01350): Smallscale environmental chamber test; VOC emission compliance test of building products;



## Specifications

Finish	Flat
Color	White
pH	7 ±1
V.O.C.	37g/L
Solids By Volume	67%
Specific Gravity	1.35+/-0.1 g/cc
Drying Time	@77° F & 50% R.H. – To touch 1 – 2 hours, to recoat, if required, 2 to 4 hours
Flash Point	None
Reducing or Cleaning	Water
Shelf Life	18 months from date of manufacture in unopened containers and stored at 5° C to 35° C (40° F to 95° F)
5 Gal. Container Weight	58 lbs.

## Testing

ASTM E84 - Flame Spread 0 Smoke 15

ASTM E 119- Fire Resistance

CAL 1350 Compliant

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## Application Thickness

DC5040 must be applied at 26 mils WFT to the I-Joist top and bottom flanges and both sides of the web. The sub-floor is not required to be coated.

## Material Preparation

DC5040 must be thoroughly mixed before application. Failure to do so will seriously compromise the coating's ability to perform. It is required to perform mechanical stirring with a medium 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 gallons pail, 15-20 minutes per 55-gallon drum.

## Temperature:

PROTECT FROM FREEZING DURING SHIPMENT, STORAGE, AND USE. DC5040 is a water based coating which will freeze and become unusable at temperatures below 32° F. Do Not store material at temperatures below 40° F. Do Not apply DC5040 when ambient air and substrate temperatures fall below 50° F. Store DC5040 at 40° F to 95° F at all times.

## Ventilation:

Fans may be required to circulate the air during application, especially in high or low humidity. Air flow must be across the area DC5040 was applied, but not directly on it. If the relative humidity is greater than 85% at the end of spraying and cross ventilation is not drastically reducing it, then a mechanical industrial dehumidifier is required.

## Application Equipment

DC 5040 can be applied by brush, roller or airless sprayer. For maximum yield and coverage spray application is recommended. Proper equipment and settings are imperative for correct application. Remove all filters from machine and gun. DC5040 requires high pressure to atomize the coating at the spray tip, correct atomization will yield a more consistent spread rate and easier coverage of uneven surfaces. Using the table, ensure you match your tip size to your machine - this is critical to ensure correct pressure at the spray tip. If the spray pattern has fingers or tails, then the pressure should be increased. If the maximum pressure of the sprayer is not enough to achieve a good spray pattern, a spray tip with a smaller orifice should be used.

Pump:	Graco UltraMax 795 or equivalent
PSI:	3000
GPM:	1.1
Tip:	517 - 523 or equivalent.
Filter:	60 mesh filter at machine, remove filter from gun if present
Hose:	3/8" diameter airless spray line for the first 100' from pump and 5/16" x 3' whip
Pump:	Graco TexSpray Mark 5 or equivalent
PSI:	3300
GPM:	1.35
Tip:	517 - 523 or equivalent.
Filter:	60 mesh filter at machine, remove filter from gun if present
Hose:	3/8" diameter airless spray line for the first 100' from pump and 5/16" x 3' whip
Pump:	Graco GMAX 7900 or equivalent
PSI:	3300
GPM:	2.2
Tip:	517 - 529 or equivalent.
Filter:	60 mesh filter at machine, remove filter from gun if present
Hose:	3/8" diameter for first 200' 1/4" for additional 100' from pump and 5/16" X 3' whip
Pump:	Graco GH 833 or equivalent
PSI:	4000
GPM:	4.0
Tip:	517 - 529 or equivalent.
Filter:	60 mesh filter at machine, remove filter from gun if present
Hose:	1/2" diameter for first 200' 3/8" for additional 100' from pump and 5/16" X 3' whip



**International Fireproof Technology Inc.**  
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