
August 3rd, 2016

International Fireproof Technology (IFTI)
Attn. Brad Glazier
17528 Von Karman Ave
Irvine, California 92614

RE: Coverage of Intumescent Paint on Regulatory Test Room Modules

Dear Mr. Glazier,

This letter is a follow-up to our conversation on June 24, 2015. We talked about the presence of “pin holes”, or voids, in intumescent paint on test modules submitted for evaluation at our test laboratory.

We often evaluate the performance of an intumescent paint on spray applied polyurethane foam (SPF) against large scale flammability tests. Included in these tests, but not limited to, is NFPA 286 (Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth). The purpose of this test is to determine the contribution of interior finish materials to room fire growth during specified fire exposure conditions (as indicated by the Scope of the referenced standard).

In order to achieve this, a room module is built with wooden stud and joist cavities (dimensions as prescribed by the client), filled with spray-applied foam (of specific type and conditions), and allowed to cure (as indicated by the manufacturer). The module is then coated with a specific thickness (as measured with a wet film thickness gauge, for instance) of intumescent paint. This is applied (in almost all cases) with a paint spray apparatus.

The module is then fire tested for performance against the referenced standard for compliance to the method and for approval against a building code for that prescribed set up (as outlined in the test report) for application in the field.

It is common for “pin holes”, or areas that are not completely covered by paint, to be present after curing on the SPF. This is due to the large surface area, or the foam (being an open or closed cell foam) not being completely flat. The only way to guard against these holes is to test a room with a completely flat surface of foam and paint that surface for testing. This is not common in the field and, more importantly, not needed in order to achieve successful results in the test. We see many times that intumescent paint suppliers have successful results in this test with the pin holes present, as indicated in the test reports disseminated from our lab. With some wet film thicknesses, it is also common to see slight translucence of the paint in tests that have achieved compliant results against the referenced test standard.

Furthermore, some applicators and / or Authorities Having Jurisdiction who may not be familiar with this phenomenon may be inclined to add more intumescent paint on top of the prescribed or tested amount in order to cover these voids. This brings up two very important factors to consider. The first being that adding additional intumescent paint to an assembly that already has the prescribed amount applied renders the assembly not representative of what was tested and approved in the laboratory. The second factor to be considered is that more paint (beyond what is prescribed), in this case, is not better. More intumescent paint added to the assembly may cause the intumesced char (in a fire scenario) to be heavier than it would be in a prescribed case, and fall off exposing the fuel underneath.

Should you have any additional questions or comments regarding this letter, please do not hesitate to contact me.

Respectfully,



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