



## TranZform® Fire Testing and Evaluation to the IBC®, NFPA 80 and NEC®

TranZform Fire Horizontal Sliding Fire Door Assemblies as manufactured by Cornell Iron Works, Inc. have been tested for compliance to the 2009 International Building Code – Section 1008.1.4.3 and the performance requirements of NFPA 80 – Chapter 9 and evaluated for electrical installation compliance per the National Electric Code. A summary of the test and its findings are as follows:

**International Accreditation Service (IAS) Testing Laboratory:** Intertek Testing Services NA Inc., 8431 Murphy Drive, Middleton, WI 53562. As a third party IAS testing laboratory, Intertek (TL-271) complies with the International Code Council Evaluation Service’s Acceptance Criteria for Quality Documentation per ICC-ES AC10.

**Report Number:** 3184178MID-001 issued August 31, 2009

### Test Summary:

A 25’ wide x 8’ high (200 sq. ft.) TranZform Fire Horizontal Sliding Fire Door assembly, “S” rated for smoke control and up to 3 Hours of fire protection, was fully installed in accordance with actual opening conditions that included approved header and floor construction, a jamb striker and an approved pocket assembly to demonstrate operational requirements as per typical field installations. The door and operating system was designed, built and provided according to Cornell’s current manufacturing procedures.

The door and operating system was verified for proper listing and labeling requirements according to Underwriters Laboratories (UL) test standards per Cornell’s UL procedure. The control system construction was verified for compliance to the requirements for electrical installations as per the NEC.

### Results:

Cornell’s TranZform Fire Horizontal Sliding Fire Door assembly met or exceeded the performance requirements of the 2009 IBC – Section 1008.1.4.3 Horizontal Sliding Doors and 2007 NFPA 80 - Chapter 9 Special Purpose Horizontally Sliding Accordion or Folding Doors. The control system construction is compliant with the requirements for electrical installations per the NEC. Endurance testing of more than 10,000 close/open operating cycles without operator system failure or excessive wear of the door assembly was confirmed.

A comprehensive 27 page test report including a test specimen description, listing verifications, results, observations and all test data is available upon request by contacting Cornell by phone at 570-474-6773 ext. 568 or by emailing danm@cornelliron.com.

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**TranZform® Fire Horizontal Sliding Fire Door  
Testing and Evaluation Results Summary of an IAS Third Party Testing Laboratory  
to the Performance Requirements of the IBC® and NFPA 80**

TEST RESULTS SUMMARY

<b>2009 IBC 1008.1.4.3 Test Results for TranZform Fire Horizontal Sliding Door</b>		
<b>Test Item</b>	<b>Requirement</b>	<b>Test Result</b>
#1	Door shall be power operated and manually operable in the event of power failure.	Comply
#2	Door shall be openable from both sides without special knowledge or effort.	Comply
#3	Manual operating force – 30 lb. max. to set the door in motion, 15 lb max. to maintain motion.	Passed
#4	Lateral load test – door shall have a 15 lb. max. operating force with 250 lb. lateral load.	Passed
#5	Applicable ratings and installation in compliance with NFPA 80.	Comply
#6	Battery operational tests, integrated standby power supply.	Passed
#7	Electrically supervised power supply (battery monitoring duration upon loss of power).	Comply
#8	Minimum 88" opening distance within 10 sec. of operation.	Passed

<b>2007 NFPA 80 Test Results for TranZform Fire Horizontal Sliding Door</b>		
<b>Section</b>	<b>Requirement</b>	<b>Test Result</b>
9.4.1.1 & 9.4.2.1	Only labeled power operators listed for use with the door shall be used.	Comply
9.4.1.2	Automatic closing speed shall not have a delay of more than 10 seconds.	Passed
9.4.1.3	Automatic closing speed shall be between 6 to 24 inches per second	Comply
9.4.2.2	If closing is achieved by power operation, standby or emergency power shall be provided	Comply
9.4.2.2.1	Time delay to emergency power from normal power failure shall not exceed 10 seconds	Passed
9.4.2.2.3	The emergency power source shall be of capacity to operate a min. of 50 open/close cycles	Passed
9.4.2.3	Power operation shall not occur if temperature on either side of door reach 500 degrees F	Comply

A comprehensive 27 page test report as provided and signed off by the IAS Third Party Testing Laboratory is available in its entirety upon request. Please contact Cornell by phone at 570-474-6773 ext. 568 or email [danm@cornelliron.com](mailto:danm@cornelliron.com) to request a copy.

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