

A decorative graphic consisting of several concentric, nested hexagonal shapes in shades of blue and brown, positioned above the main title.

# ZS2 Testing & Certifications

Presented by: Dr. Doug Brown Ph.D.



1. TESTING LABS
2. FIRE
3. WATER
4. MOLD
5. STRENGTH
6. BUILDING CODES

AGENDA

# TESTING LABS



# TESTING LABS

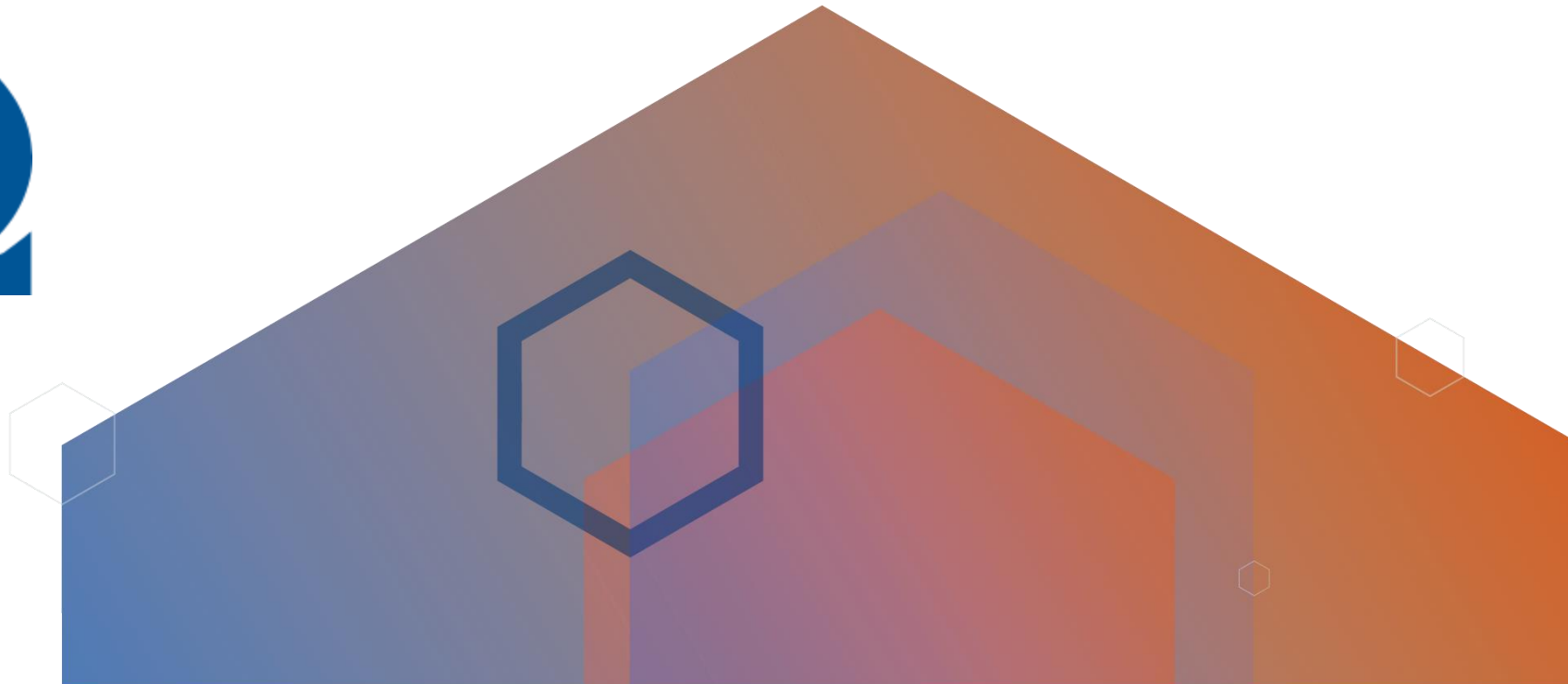


## CSA (Canadian Standards Association) & UL (Underwriters Laboratories)

Independent testing laboratories, such as the Canadian Standards Association (CSA) and Underwriters Laboratories (UL), serve as a third party to validate and ensure that a product is safe for use. For many years, UL was regarded as the foremost certification laboratory in the United States. Yet, within the past 20 years, acceptance of CSA in the United States has grown to where the UL and CSA/US marks have become virtually interchangeable.

## QAI (Quality Assurance International)

U.S.-based international organic certification company that is authorized by the United States Department of Agriculture as "a USDA-accredited certifying agent that operates globally to certify organic operations to National Organic Program standards." It is a for-profit corporation, established in 1989, and headquartered in San Diego, California. It is one of the world's largest certifiers, operating in the United States, Canada, Latin America, European Union, and Japan. It is owned by public health and environmental organization NSF International.



## ICC-ES (International Code Council Evaluation Services)

An ICC-ES Report is a document that presents the findings, conclusions, and recommendations from a particular evaluation. ICC-ES Reports verify that new and innovative building products comply with code requirements. ICC-ES Reports provide information about what code requirements or acceptance criteria were used to evaluate a product, and how the product should be identified, installed and much more.



# TESTING LABS

## INTERTEK

Intertek is a leading Total Quality Assurance provider to industries worldwide.



## NRC (National Research Council) & CCMC (Canadian Construction Materials Centre)

\*ZS2's Manufacturing Equipment is CCMC Certified.

\*ZS2 TechPanel CCMC Certification – Coming Soon!

The Canadian Construction Materials Centre (CCMC) assesses compliance with Canadian building, energy and safety codes. They are the only construction code compliance service supported by the Government of Canada. Trusted by over 6,000 regulators across Canada, they help manufacturers get market approval and support innovation and growth in the Canadian construction industry.





# CERTIFICATIONS



# FIRE

Standardized tests to determining the combustibility and potential fire hazard of building materials.

ZS2 TECHBOARD		
TEST NAME	TEST STANDARD	ZS2 TECHBOARD RESULT
NON-COMBUSTABLE	AS1430.1-1994	PASS
FLAME SPREAD	ICC-ES AC386	PASS
WUI/ SURFACE BURN & FLAME SPREAD*	ASTM E84-19b	PASS
*Comparable to		UL 723, ANSI/NFPA No. 255/UBC No.
THERMAL CONDUCTIVITY	EN 12667:2001	PASS

# WATER & MOLD

Standardized tests to determining the resistance of materials to fungi.

ZS2 TECHBOARD		
TEST NAME	TEST STANDARD	ZS2 TECHBOARD RESULT
MOLD & MILDEW	ASTM G21	PASS
FUNGUS	ICC-ES AC386	PASS
WATER VAPOUR PERMEABILITY & IMPERMEABILITY	EN 12467:2012+A1:2016 section 7.3.4	PASS



# STRENGTH

Standardized tests to determining the resistance of **BUILDING MATERIALS** to environmental conditions and applied loads.

ZS2 TECHBOARD		
TEST NAME	TEST STANDARD	ZS2 TECHBOARD RESULT
FLEX STRENGTH/FREEZE THAW 25	ICC-ES AC386/ASTM C1185-08	PASS
COMPRESSION INDENTATION	ICC-ES AC386	PASS
SHEAR BOND	ICC-ES AC 386 ANSI A 118.1	PASS
COMPRESSION STRENGTH	ASTM C1325 & ASTM D3295	PASS
WEIGHT	ASTM 1037	PASS
CHLORIDE FREE SUBSTANCE INSPECTION	ASTM C871-18	PASS
LATERAL NAIL RESISTANCE	ICC-ES AC378 & ASTM D1037-99	PASS
IMPACT RESISTANCE	ASTM C1325 & ASTM D3295 & ISO 7892	PASS



# STRENGTH

Standardized tests to determining the resistance of **BUILDING ASSEMBLIES** to environmental conditions and applied loads.

## ZS2 TECHPANEL

TEST NAME	TEST STANDARD	ZS2 TECHBOARD RESULT
COMPRESSIVE LOAD	ASTM E72 s9	PASS
TRANSVERSE LOAD	ASTM E72 s11	PASS
RACKING LOAD (SHEAR RESISTANCE)	ASTM E564	PASS

# BUILDING CODES

- ✓ International Building Code (IBC)
  - Title 24 – California Building Code (CBC)
  - All States
- ✓ National Building code of Canada (NBCC)
  - BC Energy Step Code
  - NBCC – Alberta Edition
  - & All Provinces
- ✓ National Fire Protection Agency (NFPA – US)
- ✓ National Fire Code (NFC – Canada)
- ✓ International Fire Code (IFC)
- ✓ US & Canada Green Building Council (LEED)

# SUMMARY

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Thank You

QUESTIONS?