10 YEARS OF PERFORMANCED BASED REGULATIONS IN AUSTRALIA

by

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OBJECTIVE

FUNCTIONAL

PERFORMANCE

- Deemed to satisfy specifications
- Appraisal
- ABCB Certification

Building Code of Australia

Class 1 and Class 10 Buildings
Housing Provisions
BCA Compliance

- Objectives
- Functional Statements
- Performance Requirements
- Building Solutions
- Deemed-to-Satisfy Provisions
- Alternative Solutions

- Compliance Levels
- Guidance Levels

- Assessment Methods:
  - Documentary evidence described in A2.2
  - Verification methods
  - Expert Judgements
  - Comparison to Deemed-to-Satisfy provisions
EVIDENCE OF SUITABILITY

- Test report by registered testing authority
- Certificate of Conformity or Certificate of Accreditation
- Documentation from a professional engineer
- Certificate issued by a JAS-AND accredited body
- Product listing from an accredited fire testing laboratory
- Any other documentation that demonstrates suitability
RECYCLING

Dampness in walls

Change of use places higher requirement of moisture transfer in external walls
NEW STADIUM

Playing surface
175 x 142 yards
EVACUATION

Deemed-to-satisfy when whole playing surface is in use

Extra exit path lengths required performance fire modeling to show safe evacuation when seating extended onto playing surface
BUILDING WRAPS

Australian Standard AS/NZS 4200.1:1994

Classifies for wind exposure based on tensile strength

Tensile strength is related to tear strength when you are in one medium
Load Test
1 Bag

Paper – Medium

Polyethylene – extra light
Load Test
2 Bags

Paper – Medium

Polyethylene – extra light
Load Test
3 Bags

Paper – Medium
Polyethylene – extra light
Load Test
4 Bags

Paper – Medium

Polyethylene – extra light
Load Test
5 Bags

Paper – Medium
Failed at 4

Polyethylene – extra light
Failed at 5
Failure tear at fixing

Paper – Medium
Failed at 4

Polyethylene – extra light
Failed at 5
BCA – Fire Deemed-to-Satisfy

AS 1530.2
‘Method for fire testing of building materials’

Polyethylene wraps not possible to test to this method
EMBEDDED ENERGY

- Currently codes only regulate daily energy usage
- Embedded energy ignored

Embedded energy

- Manufacture
- Transport
- Installation
- Demolition
From a WOBO perspective embedded energy is significant when assisting undeveloped countries in upgrading their housing stock.

These countries with largest homeless populations tend to be located in temperate to tropical climates where embedded energy makes a major contribution to the total energy used over the life of a building.
Performance based regulations will allow for innovation in construction and materials used in the increasing need of the homeless.
SUMMARY

1. Deemed to satisfy solutions will always be the most used path through a performance code
2. Allow the use of innovative designs and materials
3. Will assist in lowering green house gas contribution from the construction industry
4. Assist in freeing up trade in construction between countries
5. Allow building professionals to use their full ability in ensuring correct level of safety is maintained