Importance of a specified Design Wind Load

When your project engineers or architect specifies a design wind load, it allows Competent Persons (Glazing) to deviate from the SANS 10400 Part N tables and use a rational design based on SANS 10137 wind graphs.

These deviations from the SANS 10400 - N tables must be signed off by a Competent Persons (Glazing) or a Pr Structural Engineer.

The below table shows the maximum m² for 6.38mm and 8.38mm PVB Laminated Safety Glass under different wind loading conditions.

These are vertically glazed with framing all round and assumes a glass aspect ratio of 1

By requesting a design wind load from the project engineers, it could result in the building project being glazed legally with 6.38mm PVB Laminated Safety Glass where the deemed to satisfy tables would require 8.38mm PVB Laminated Safety Glass. This will reduce your overall building cost.

Rational Designs may exceed the m^2 tables stipulated in the National Building Regulations. When you deviate from SANS 10400 – N, the building inspector will require a Competent Persons (Glazing) sign off for the design.

The Competent Persons (Glazing) or Pr Structural Engineer will be required to do a physical site inspection of the completed installation before issuing a sign off design report.

Maximum m² based on vertical glazing supported all round

| | SANS 10400N | | Windloading | | | | |
|-------------------------------|-------------|----------|--|-----|------|------|------|
| | Coastal | | Rational Design - Specified Wind load (Pa) | | | | |
| Glass Product | Internal | External | 600 | 800 | 1000 | 1200 | 1500 |
| 6.38mm Laminated Safety Glass | 4.1 | 2.9 | 7.0 | 5.2 | 4.1 | 3.5 | 2.8 |
| 8.38mm Laminated Safety Glass | 6.0 | 4.3 | 10.0 | 7.9 | 6.2 | 5.2 | 4.2 |

Benefits of specifying Windload

- Save money
- Reduce installation time
- Reduce handling risks
- Be compliant and safe

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 Wind Direction

 Positive Pressure

