

Bigtopmania; Wind Load Statement

Tents / Marquees./ Temporary Demountable Structures;

Nb; All tents manufactured to EEC and Uk BS standards 36m/sec 82mph. Using fire retardant and other suitable materials by MUTA / Pertxa member companies.

Main References;

Institute of Structural Engineers	“Temporary Demountable Structures, Guidance on procurement, design and use.” 2007
Made Up Textiles Association. (MUTA)	“A Code of Practice for Marquee Hirers” 1998
Made Up Textiles Association. (MUTA)	“Marquee hire Do it right Make it Safe”. 2000
Performance Textiles Association (PTA)	“MutaMarq, Accreditation for Safe Use and Operation of Marquees and Temporary Structures, a Best Practice Guide” 2008

Tent Manufacture Design Statement. and Notes.

- Our tents and marquees are classified as “Small Marquees” “having a span of 12m /40ft or less”
- As such “an independent design check is not needed.” TDS p29 sect 5.1.4
- An independent erection check is needed. (i.e. Sign Off /completion sheet) TDS p30 sect 5.1.5, 5.2.6
- Dynamic Site specific site surveys and an anchorage surveys is good practice.
- Ditto Dynamic Risk benefit assessments are essential good practice

“Tents designed empirically and used successfully for generations of marquee contractors; i.e. traditional marquees with a span of 12m or less can be continued to be used without the necessity to produce stability calculations” p 97 TDS. 12.5
“Experience in the use over long term indicates that small marquees erected to comply with the Performance Textiles Association Code of Practice may be used in winds up to;

- Beaufort range 5 when single guyed (gust wind speed equivalent 18m/s
- Beaufort range 7 when double guyed (gust wind speed equivalent 27 m/s)
- Small marquees may be used anywhere in the United Kingdom provided they are erected and operated in accordance with sections 12.3 and 12.4.” of T.D.S. ie according to P.T.A codes. p 58 TDS. 8.3.2.2

“Active safety Management allows the erection of marquees at sites where the maximum service gust wind speed exceed the rated value for the marquee provided that the active safety management procedures are properly defined and enforced.” 8.3.2.3

“Sheltered sites are preferred, bearing in mind south westerly to north westerly prevailing winds”. 8.3.2.4

“Crew should be adequately trained”. 8.3.2.4

“Weather forecasts should be available and constantly referred to.” 8.3.2.4

“if the maximum service gust speed for the site requires the marquee to be double guyed, the marquee may be single guyed until strong winds are forecast, providing provisions for double guying are provided.” p58,TDS. 8.2.3.4

“Active Safety management procedures should be initiated as soon as wind speeds approaching 90% of the maximum service gust speed are forecast.... single guying increased to double guying...if the marquee cannot be strengthened sufficiently to withstand the forecast wind speeds before they arrive, then

The marquee and its immediate area should be cleared of the public.

The marquee should be partially dismantled by lowering to the ground.” p58 TDS 8.3.2.4

In practice this means that “In Adverse Weather Conditions”;

- It is recommend that all open fronted tentage is enclosed or walled off when not in use or when extreme weather is forecast.
- It is recommended that the open frontage does not face into the prevailing wind
- It is the client’s responsibility to take appropriate action.”

Gusting and High Winds/ Exposed Sites.

- Most modern tents have a wind/load capacity rating for 60mph. if the wind is forecast to within 90% of this figure then it will be necessary to evacuate and close down the tent
- Where no formal calculations exist, both pole tents and frame tents should be closed down when wind gusting of 40mph is expected,(if strengthening measures have taken place then it may be possible to increase this figure)
- When the tent is situated on an exposed site it is recommended that, particularly in winter months, that expert tent maintenance teams should be available/in touch at all times
- All wind speeds are indicative and the contractor should be consulted for further information.””
MUTA. P5 “marquee hire doing it right”

At wind gust speed of 40mph, higher force 7, and approaching Beaufort scale force 8, Gale. (Whole trees in motion, difficulty walking into wind, twigs breaking off trees.)

SAFE ACTION RECOMMENDED; CLOSE TENT UNLESS STRENGTHENED

Then, if reckoned to be safe, perhaps raise the closure speed to 50mph, top gale force 8 / low gale force 9, (Chimney pots and slates blown off some houses.)

***Nb; THIS IS ONLY A GUIDE FOR REFERENCE AND RESPONSIBILITY REMAINS WITH CLIENT/ OPERATOR
Bigtopmania undertakes to maintain safe marquee operations in accordance with national guidelines.***