

DECLARATION OF MAXIMUM LOAD

Applies to household JANSSENS-greenhouse models:
Helios, Eos, Arcadia, Modern, Gigant, Cathedral

ODS rapport nr STR-2023-JANSALU-002-G-063-23-04 has determined the maximum wind and snow load that can be applied on the of the structural elements (profiles and glass) of the Garden Greenhouse project. Bracing of the glasses can have a huge (positive) effect on the result but according to the European codes we cannot take this into account. Therefore we assume that real-life tests will perform better then these calculations.

As the result of the calculations the following characteristic loads can be applied to the structural elements of the garden greenhouse:

Maximum snow-loads on the roof $s_k = 0,45 \text{ kN/m}^2$

As given in DIN EN 1991-1-3 the weight density of snow may be taken as 2 kN/m^3 . With an angle of inclination of 22° this snow loads corresponds to the following height of snow laying on the roof: 20 cm!

Maximum wind-loads: peak velocity pressure $q_p(z) = 0,40 \text{ kN/m}^2$

The determined loads are higher than the loads recommended in the German glass- house Code DIN V 11535 for many using purposes. For glass-verifications the is no European code existing so far. Due to that fact the glass was verified on basis of the German Glass-Code DIN 18008.

Please note:

- *Detail and joint verifications are not part of this document.*
- *The maximum snow load and the maximum wind load were determined independent. The combination of the maximum snow load with the maximum wind load has been studied.*
- *This document is only applicable to model-names described above, T-models are NOT included. Maximum length of the greenhouse is set at 6m! It is not permissible to transfer the results to other constructions or load conditions.*

May 11, 2023. Signed for and on behalf of the manufacturer by:



Peter Janssens
CEO JANSSENS NV