

1. On which technical and dimensional standards is the GTC based?

The GTC interprets and correlates several associated standards with the design of glass elements, such as DIN 18008 (Parts 1, 2 and 5) according to the respective modules and their related specificities and different Eurocodes (EN1990: 2009, EN1991-1- 1: 2009 and EN1991-1-4: 2010). For Portugal NP 4517: 2014 and DL 238/83 are also correlated.

2. What is the GTC's structure? What are the available modules?

The GTC is presented (and possibly subscribed to) in modules. The available modules are: Window Frames Module, Floor and Steps Module and Swimming Pool Windows Module. New modules may be developed.

3. Does the GTC make calculations according to the different national annexes to the Eurocodes of the different countries?

Yes, at this time it makes calculations taking into account wind loads specified in the Wind Eurocodes (for window frame spans) and Overloads (for floors) for Portugal, France, Italy, Germany and Spain.

4. What actions are included in the calculations made by the GTC?

The wind action is considered in the case of windows and facades, window frames module.

The overloads are considered in the dimensioning of the glass step and floors, under the flooring module.

Hydrostatic action is considered in the case of glass panels for swimming pool windows Module, under the corresponding module.

5. Is it possible to impose actions with parallel direction to the glass plane?

No, the GTC is only prepared to dimension glass for actions with normal direction (perpendicular) to its plane.

6. Is it possible to dimension for dynamic loads?

No, the GTC is only prepared to dimension for static loads.

7. Can I consider my own loads values?

Yes, but only under the window frames module.

8. Should I increase the characteristic values of the loads when inserting them manually?

No, the GTC automatically multiplies the characteristic value intended for the calculation by the calculation coefficient associated with each case.

9. Is it possible to change the value of the security coefficients for Swimming Pool Windows?

The default value (3.5) presented is an increased value suitable for the interpretation of the levels of security imposed. You can change it from the value of 1.75 to higher values as desired.

10. Is it possible to make a distinction between different load actuation times when dimensioning floors?

Yes, the GTC distinguishes three types of duration for glass flooring, you may choose between them.

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11. Is it possible to customize the distributed and concentrated loads when dimensioning glass flooring?

Yes, you may enter the value of the distributed and concentrated load.

12. Are various cases of zoning, roughness and height presented during the dimensioning of glass under analysis at the work site?

Yes, the GTC shows (for any of the countries) different zones, roughness and height, being studied in accordance with the respective national annexes according to the applicable Eurocodes (and the RSA in the case of Portugal).

13. What kind of supports are considered in the calculation of the program?

In either of the available modules it is considered that the glass elements have linear and continuous peripheral supports. Displacement is prevented in all directions and intermediate or occasional supports are not considered

14. Is it possible to dimension several types of glass?

Yes, from annealed, tempered, heat-strengthened, laminated and insulating glass.

15. Can laminated glass and thermoplastic glass resulting from calculation under the window frames module have different thicknesses in its composition?

No, the GTC only calculates laminated glass with equal thicknesses.

16. What checks are made to calculate the thickness of the glass?

In the calculation/dimensioning the bending strength is tested to the ultimate limit state and strain to the service limit state.

17. What strengths are used in the calculation?

Those presented in the product standards: EN 572, EN 12150 and EN 1863.

18. Can I have access to a technical report for any calculation performed?

Yes, at the end of the calculation you will have access to a customizable report where the dimensional solution is presented.

19. What other information is presented in the report?

The technical report will also contain some recommendations relating to the product, execution and installation of the dimensioned glass.

20. Can I customize the report?

Yes, you can insert your personal data (or company data) and identify your customer and project under study, should you so wish.

21. Can I access previous reports?

Yes, you will have access to all previous reports, which you may consult and edit should you wish reports that will be present in your calculation history.