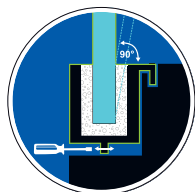


GM UNIQUE SELLING POINTS

STANDARD-COMPLIANT DESIGN

glasmarte®



Free installation

Low constraint bearing
DIN 18008-1 - 10.1.3 | ÖN B 3716 -1 - 6.2 | SIGAB 5.0



Forced stress due to installation

Wedges must not be used (local stresses).



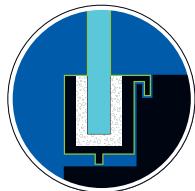
Stable in use

DIN 1055-100 - 3.1.2.3 and 10.1 | DIN 18008-1 - 5.2
(TRLV 3.1.4 and 3.1.6) | TRAV 2.4 | EN 1990 - 3.4 and
4.1.7 | ÖN B 3716 -1 - 6.2



Change through use

Non-reversible serviceability limit state due to e.. dirt
(gravel ...)
Indirect effects from ice, snow and moisture the storage
conditions. Environmental influences with an effect on
the durability of the supporting structure



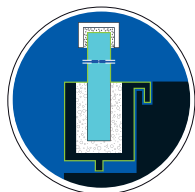
Unchangeable positional stability

Position safety due to destabilizing actions
DIN 1055-100 - 9.2



Variable position safety

Due to slipping of wedges etc. Changes in the fastening



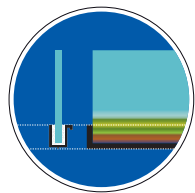
Uniform force distribution

Bonded handrail
DIN 18008-4 - Appendix F



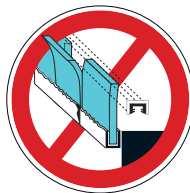
Voltage peaks due to use

Local fixings at large distances cause a non-linear
bearing.
No rubber profile



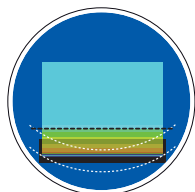
Uniform storage

Avoidance of unplanned voltage peaks in the bearing
DIN 18008-1 - 10.1.1 and 10.1.3



Voltage peaks

Constraints caused by the handrail must be prevented
by suitable
design measures.



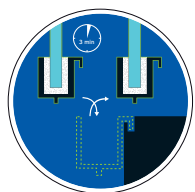
Unscheduled charges

Avoid influences from the substructure on the glass
railing, e.g. deformations
DIN 18008-1 - 3.1.1 and 7.1.5 | (TRLV 1.2) | ÖN B 3716-1 - 1



Unscheduled charges

Substructure can have a negative influence on the glass
statics.



Service

Constructions must be designed in such a way that they
can be easily and appropriately replaced or repaired.



Repair

Construction is not designed in such a way that it can be
easily and appropriately replaced or repaired.

Our interpretation of standards and technical guidelines; no claim to completeness.

GM UNIQUE SELLING POINTS

QUALITY CRITERIA

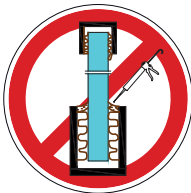
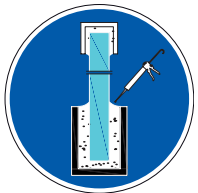
glasmarte®



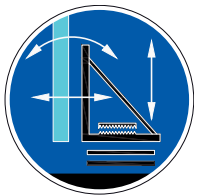
Quality composite with PVB 4-fold film
 Film thickness of PVB min. 1.52 mm for all laminated safety glass made of ESG/TVG and thus improved delamination properties
 GM RAILING® Quality= PVB min. 1.52 mm thick



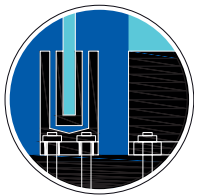
Protective anodizing for load-bearing profiles
 Protection against premature surface and crevice corrosion, optimization of bonding surfaces
 GM RAILING® Quality: Load-bearing aluminum profiles and adhesive substrate = protective anodizing



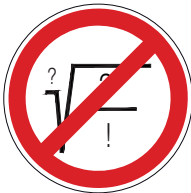
Permanent tightness
 Compatibility only exists with identical products. EPDM rubber is not compatible with silicone and is not permanently impermeable.
 Rubber fatigues, becomes brittle and shrinks.
 GM RAILING® Quality: Bearings and seals = DC silicone material



Optimum adjustability
 The vertical and horizontal position as well as the angle accuracy must be practicably finely adjustable.
 GM RAILING® Quality: Adjustment is also system responsibility.



Thermal expansion aluminum
 All screw connections must be designed in such a way that changes in the length of the aluminum profiles are possible. Practical screw spacing is an advantage.
 GM RAILING® Quality: Expansion must be taken into account.



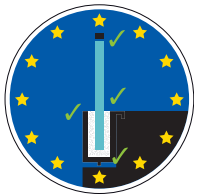
Consistent quality
 Calculations, tests and execution match. Theory alone is not enough.
 GM RAILING® Quality: 8 abz, 100 test certificates and over 1,000 original component tests.

Our interpretation of standards and technical guidelines; no claim to completeness.

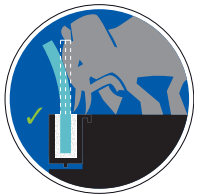
GM UNIQUE SELLING POINTS

QUALITY FROM THE CUSTOMER'S POINT OF VIEW

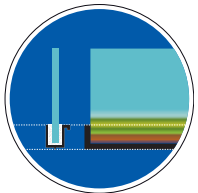
glasmarte®



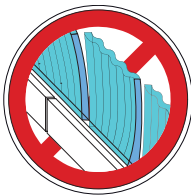
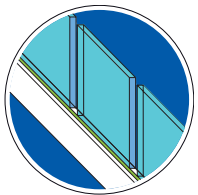
- » everything from a single source
- » European quality
- » Tested and certified products
- » standard-compliant



- » stable and safe
- » very low deflection
- » significantly more sustainable
- » dimensionally stable, suitable for use



- » Optimum, uniform glass storage
- » lowest risk of breakage
- » linear bearings instead of local pressure points



- » aesthetically unsurpassable
- » precisely aligned glass elements
- » vertical and aligned



- » technically perfect
- » statically mature
- » largest delivery program
- » individually manufactured
- » from the technology leader