

April 2023



AKKERMAN ENGINEERING SOLUTIONS ApS
Torskekaj 1A, 3. sal, 6700 Esbjerg, Denmark
CVR: 41 82 40 26

CERTIFICATE

PRODUCT

BERLIN prefabricated stair kit (PSK)



DESCRIPTION

Structural verification of the staircase BERLIN product family. The maximum installation height from floor to top tread is 3150 mm, with a maximum of 13 treads. The maximum tread width is 640 mm. The following configurations are included in this certificate: Straightway and turn up to 22,5 degrees/tread and a maximum of 90 degrees in total turn. BERLIN is approved with Shape6 and Design banister. The required strength of the walls, deck and floor are not included in this verification.

MATERIAL

Treads: 38 mm oak or beech	Center stringer elements: Steel, S235 JR
Handrail: Ø40 mm oak or beech	Balusters: Steel, S235 JR

PARTICULARITIES

The structure is checked with FEM for deformations and stress.

EUROCODES

- » EAD 340006-00-0506
- » EN 1990:2002 Eurocode: Basis of Structural Design
- » EN 1991-1-1:2002 + AC:2009 Eurocode 1: Actions on structures - Part 1-1
- » EN 1991-1-6:2005 + AC:2008 Eurocode 1: Actions on structures - Part 1-6
- » EN 1993-1-5:2005 + AC:2009 Eurocode 3: Design of steel structures - Part 1-5
- » EN 1993-1-8:2005 + AC:2009 Eurocode 3: Design of steel structures - Part 1-8

CONCLUSION

DOLLE BERLIN staircase is calculated according to Eurocodes [1] and the design is found to be strong and stable [2].

DESIGNATION

Complete product

REFERENCES

- [1] DOLLE PSK verification procedure
- [2] BERLIN PSK FEA verification report

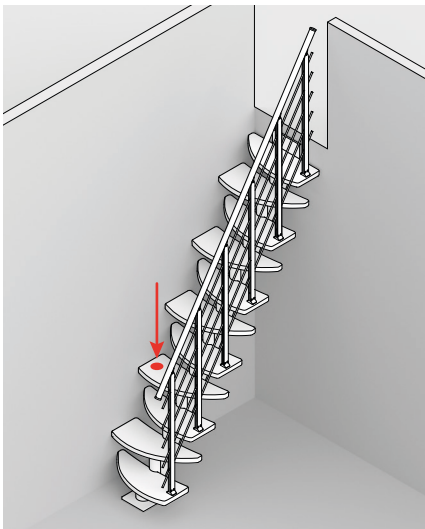
CLIENT



DOLLE A/S
CVR: 69 39 50 15
Vestergade 47, 7741 Frøstrup, Denmark

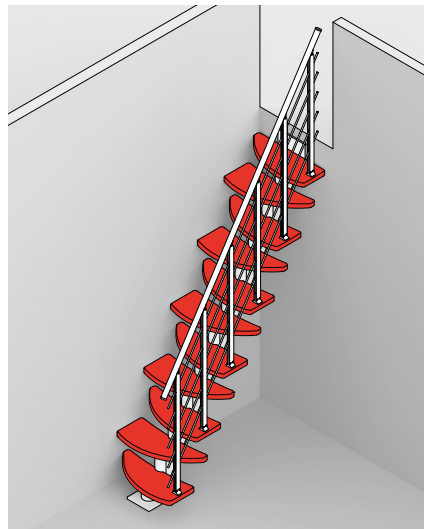


Thomas Sillesen
CEO AKKERMAN ENGINEERING SOLUTIONS ApS



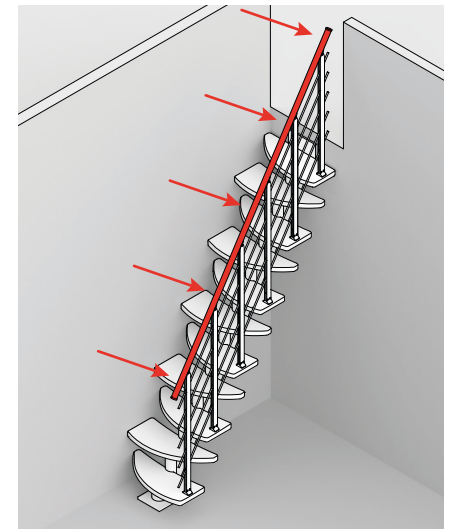
STAIR POINT LOAD

Max. 2 kN ~ 200 kg



STAIR SURFACE LOAD

Max. 2 kN/m² ~ 350 kg total load



LOAD ON HANDRAIL

Max. 0,5 kN/m ~ 50 kg/m