

# CERTIFICATE

## PRODUCT

**BASEL** prefabricated stair kit (PSK)



## DESCRIPTION

Structural verification of the staircase BASEL product family. The maximum installation height from floor to top tread is 3375 mm and it has a maximum of 15 treads. When the staircase is installed with 13, 14 or 15 treads then a support post is demanded. The tread width is 640 mm. The following configurations are included in this certificate: Straight flight and turn up to 22,5 degrees/tread and a maximum of 90 degrees in total turn. The required strength of the walls, deck and floor are not included in this verification.

## MATERIAL

Treads:	Center stringer elements:
33 mm oak or beech	Steel, S235 JR
Handrail:	Balusters:
Ø40 mm oak or beech	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 BASEL** 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] BASEL PSK FEA verification report

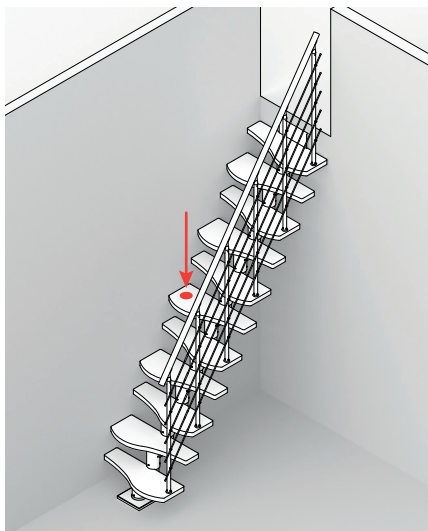
## CLIENT



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

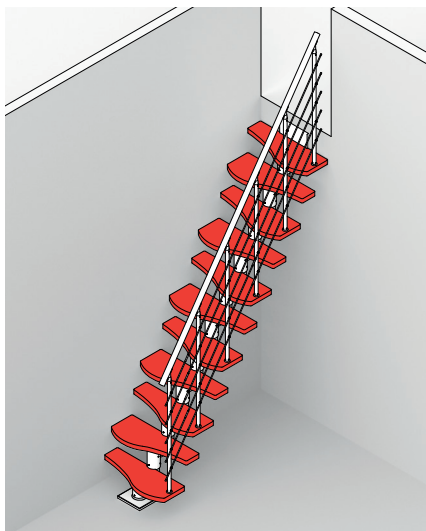



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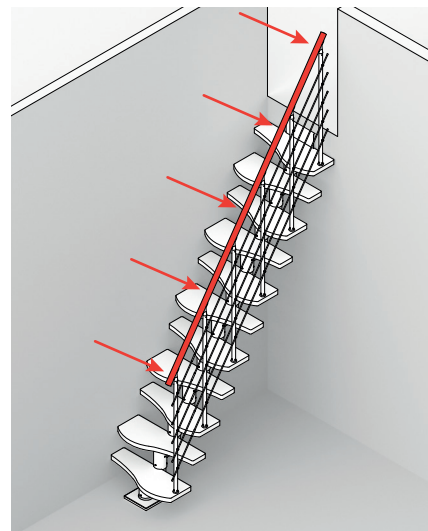
**STAIR POINT LOAD**

Max. 2 kN ~ 200 kg



**STAIR SURFACE LOAD**

Max. 2 kN/m<sup>2</sup> ~ 375 kg total load



**LOAD ON HANDRAIL**

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