# CERTIFICATE 

## PRODUCT

DUBLIN prefabricated stair kit（PSK）

## DESCRIPTION

Structural verification of the staircase Dublin 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 maxi－ mum tread width is 710 mm ．The following configurations are included in this certificate： Straightway，quarter turn and half turn．Turn can be positioned any place on the staircase except from top tread．Dublin is approved with Classic II，Classic III and Style6 banister． The required strength of the walls，deck and floor are not included in this verification．

## MATERIAL

Treads：
38 mm oak or beech
Handrail：
$\emptyset 40 \mathrm{~mm}$ beech or oak

Center stringer elements：
Steel，S235 JR
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 DUBLIN staircase is calculated according to Eurocodes［1］and the design is found to be strong and stable［2］．


STAIR POINT LOAD
Max． $2 \mathrm{kN} \sim 200 \mathrm{~kg}$


STAIR SURFACE LOAD
Max． $2 \mathrm{kN} / \mathrm{m}^{2} \sim 400 \mathrm{~kg}$ total load

## DESIGNATION

Complete product

## REFERENCES

［1］DOLLE PSK verification procedure ［2］DUBLIN PSK FEA verification report

## CLIENT

## ロロLムジ

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LOAD ON HANDRAIL
Max． $0,5 \mathrm{kN} / \mathrm{m} \sim 50 \mathrm{~kg} / \mathrm{m}$

