

EUROCODE 1(GB), Part 2-4, from May 1995

A service of
SIG D and T
Steve Cleminson - Technical Manager

date of calculation: 25.03.2010

Client

Example

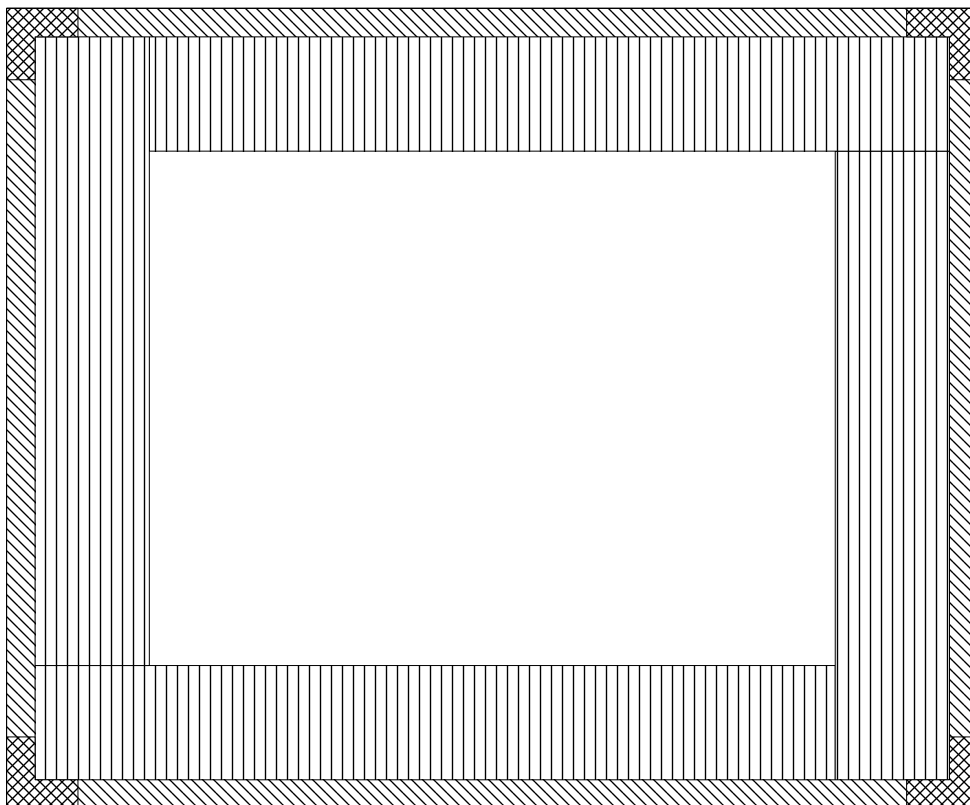
Building project

Building A
Roof 1

membrane type

Rhepanol fk -Klett

Fixings



Building project

Building A
Roof 1

SPECIFICATION

Specification of the building

height : 10.00 m
area: 3808.00 m²
girth: 248.00 m
lines: 248.00 m (perimeter lines fixing)
parapet: 0.00 m
wall openings Luv: 0.00m² total: 0.00m²
roof pitch 1.0°

maximum design load (seam/middle through the membrane)

corner : 0.400 kN / 0.400 kN
external perimeter: 0.400 kN / 0.400 kN
internal perimeter: 0.400 kN / 0.400 kN
inner : 0.400 kN / 0.400 kN

additional datas

wind zone: area 4
ground roughness category: area 4
Cfr: 0.000
Ctem: 1.000
Cdir: 1.050
Calt: 1.000

substrate: corrugated steel deck, distance between corrugations 150 mm
exposed location: no
building: closed

Building project

Building A
Roof 1

CALCULATION

area	area[m ²]
corner	64.00
external perimeter	416.00
internal perimeter	1600.00
inner	1728.00
total	3808.00

dynamic wind pressure [kN/m²]: 0.365

area	fastener dist.	distance between lines	fastener per m ²	fastener total
corner	0.150m	0.703m	9.48	607
external perimeter	0.150m	0.800m	8.33	3467
internal perimeter	0.450m	0.800m	2.78	4444
inner	0.600m	0.800m	2.08	3600
total			3.18	12118

project file:C:\Documents and Settings\Stephen Cleminson\My Documents\2010 Example.prj

Building project

Building A
Roof 1

QUANTITY OF MATERIAL

roofing membrane mechanically fixed

Rhepanol fk -Klett
width: 1.05m total: 3999m²

line fixation

length : 4771.02 m

Befestiger

corner area : 607 fastener
external perimeter area: 3467 fastener
internal perimeter area: 4445 fastener
inner area : 3600 fastener
linear perimeter fixing : 1654 fastener ()

total : 13773 fastener

Building project

Building A
Roof 1

APPLICATION MANUAL

corner area

line fixation
distance between lines 0.703 m
pattern of fasteners:
every upper corrugation

external perimeter area

line fixation
distance between lines 0.800 m
pattern of fasteners:
every upper corrugation

internal perimeter area

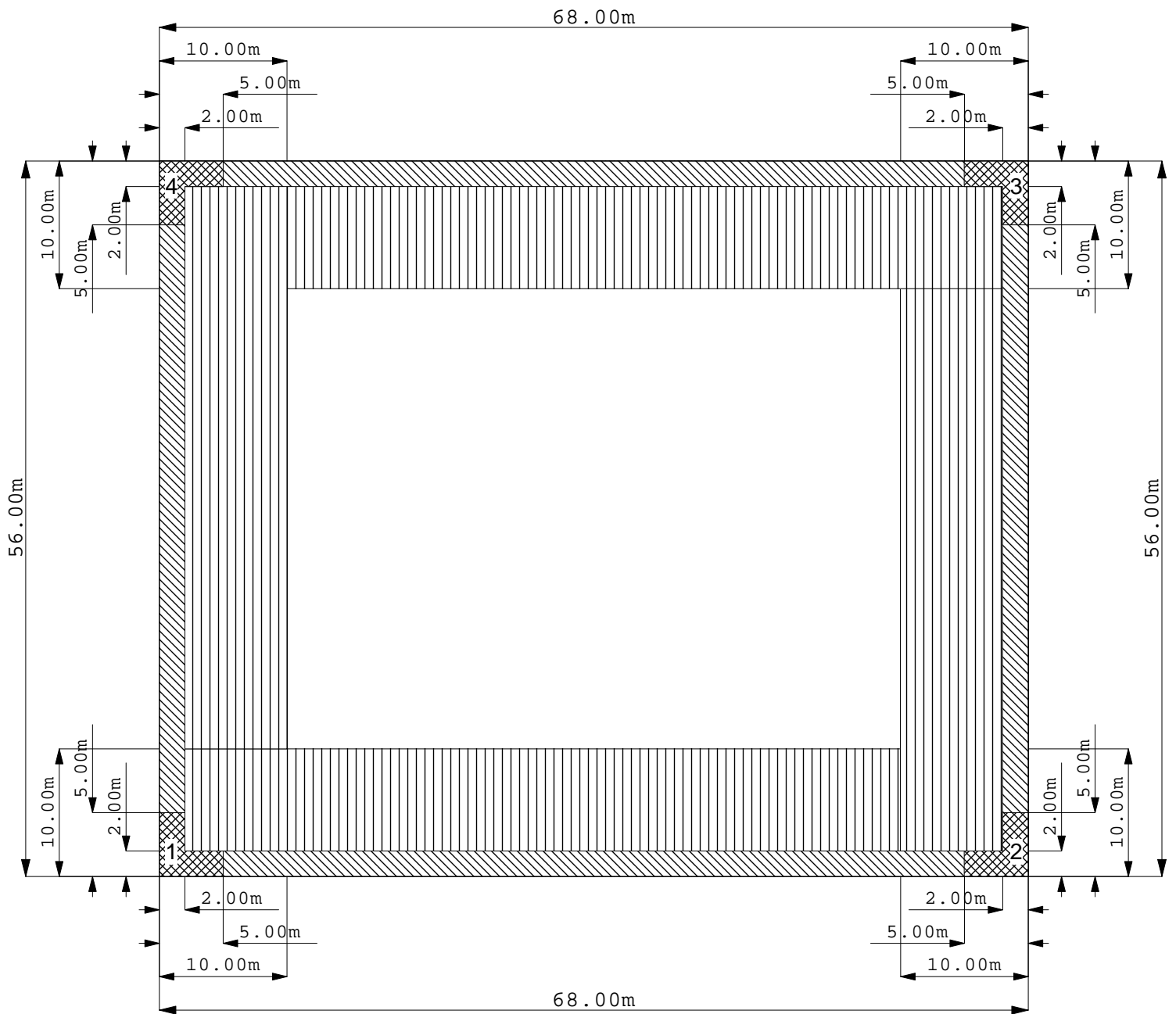
line fixation
distance between lines 0.800 m
pattern of fasteners:
every 3. upper corrugation





inner area

line fixation
distance between lines 0.800 m
pattern of fasteners:
every 4. upper corrugation

linear perimeter fixing

distance = 0.150 m



 9.48 fastener per m² in corner area
  8.33 fastener per m² in external perimeter area
  2.78 fastener per m² in internal perimeter area
  2.00 fastener per m² in internal area

Pay attention to enclosed application manual.

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