

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

Ein Service von:
<eigenen Firmennamen eintragen>

date of calculation: 21.05.2012

Client

MAVEIZOL s.r.o.

Building project

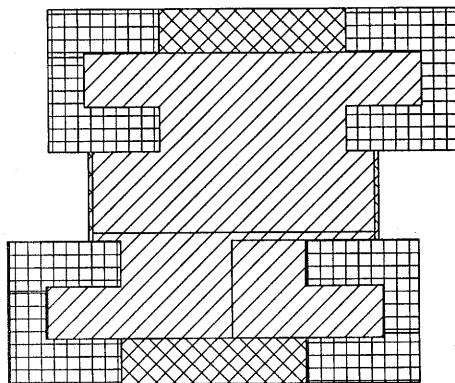
PD, Praha , Renoirova ul. 620_4
F1

membrane type

Bituminous Membrane

Fixings

R45xL + LBS-8xL



calculation program:: MF WINDSOG Version 4.0
Dipl.-Ing. Markus Friedrich Datentechnik, D-15732 Eichwalde

Building project

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S P E C I F I C A T I O N

Specification of the building

height : 25.00 m
area: 348.23 m²
girth: 89.50 m
lines: 0.00 m (perimeter lines fixing)
parapet: 0.00 m
wind ward openings: 0.00m² total: 0.00m²
roof pitch 2.0°

available width of membrane

1.00 m
overlap: 12 cm

maximum design load (seam/middle penetrating the sheet)

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 ballast

corner: 0.00 kN/m²
ext. per.: 0.00 kN/m²
int. per: 0.00 kN/m²
inner : 0.00 kN/m²

min. density of fasteners

corner : 3.00
external perimeter: 2.00
internal perimeter: 2.00
inner : 2.00

additional data

wind zone: area 2
ground roughness category: area 2
C_{tem}: 1.000
C_{dir}: 1.000
C_{alt}: 1.000

substrate: poured concrete
building: closed

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C A L C U L A T I O N

area	ce	cpe	cpi	SF	ballast	Wres [kN/m ²]	fast./m ²	area[m ²]	fast. tot
corner	2.96	1.85	0.000	1.50	0.000	3.911	9.78	118.25	1156
ext.peri.	2.96	1.20	0.000	1.50	0.000	2.541	6.35	42.37	269
int.peri.	2.96	0.70	0.000	1.50	0.000	1.482	3.71	187.61	695
total							6.09	348.22	2121

dynamic wind pressure [kN/m²]: 0.476

according to min.-distance between fasteners:

area	membrane	fastener dist.	fast./m ²	load [kN]	load	SF	fast. tot
corner	0.88m(1:2)	0.232m	9.78	0.400	100.0%	1.50	1156
ext.peri.	0.88 m	0.179m	6.35	0.400	100.0%	1.50	269
int.peri.	0.88 m	0.307m	3.71	0.400	100.0%	1.50	695
total			6.09				2121

project file:s:\services\program\mfd\CZ\mf_dachdesigner\Daten\PD, Praha , Renoirova ul. 620_4 .rbs

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Q U A N T I T Y O F M A T E R I A L

roofing membrane mechanically fixed

Bituminous Membrane
width: 1.00m total: 397m²

fixings penetrating the membrane

length = 134.38 m

Fixings

corner area : 1157 fastener (R45xL + LBS-8xL)
external perimeter area: 270 fastener (R45xL + LBS-8xL)
internal perimeter area: 696 fastener (R45xL + LBS-8xL)

total : 2123 fasteners, thereof 578 trough the membrane

A T T E N T I O N

overlaps are calculated,
T-joint, flashing strips waste material etc. are not calculated!

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A P P L I C A T I O N M A N U A L

corner area

width of membrane: 1.00 m with additional fixing through the middle of the membrane
overlap: 12 cm

dist. bet. fasteners: 0.232 m

external perimeter area

width of membrane: 1.00 m
overlap: 12 cm

dist. bet. fasteners: 0.179 m

internal perimeter area

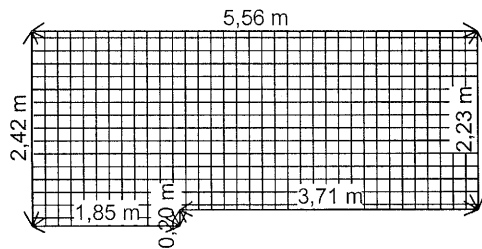
width of membrane: 1.00 m
overlap: 12 cm

dist. bet. fasteners: 0.307 m

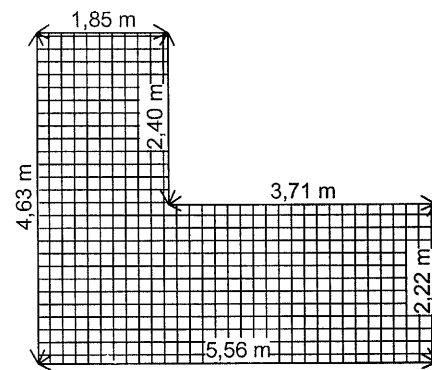
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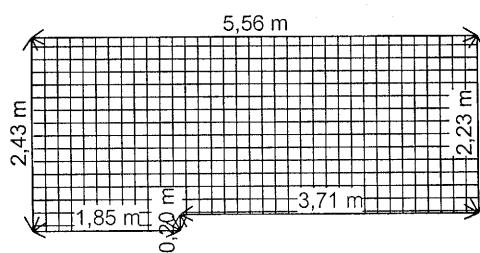
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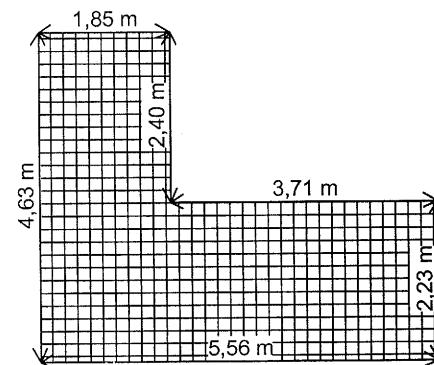
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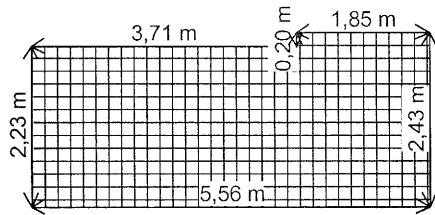


corner: fastener distance = 0.232m; width of membrane = 1.00m(1:2)
external perimeter: fastener distance = 0.179m; width of membrane = 1.00m
internal perimeter: fastener distance = 0.307m; width of membrane = 1.00m

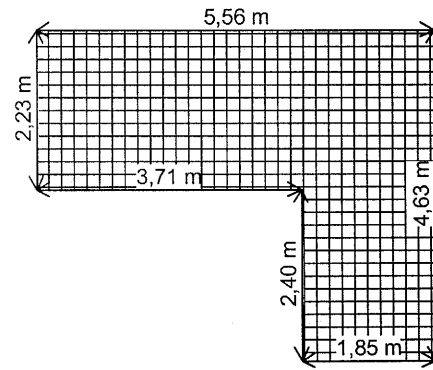
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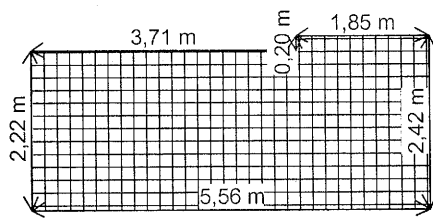
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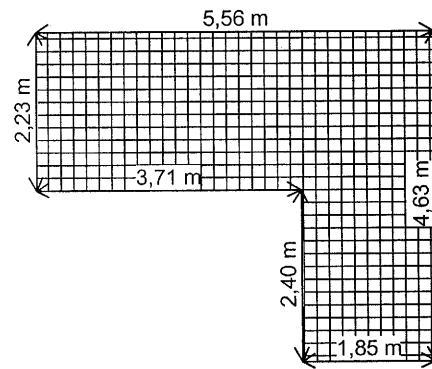
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11



12



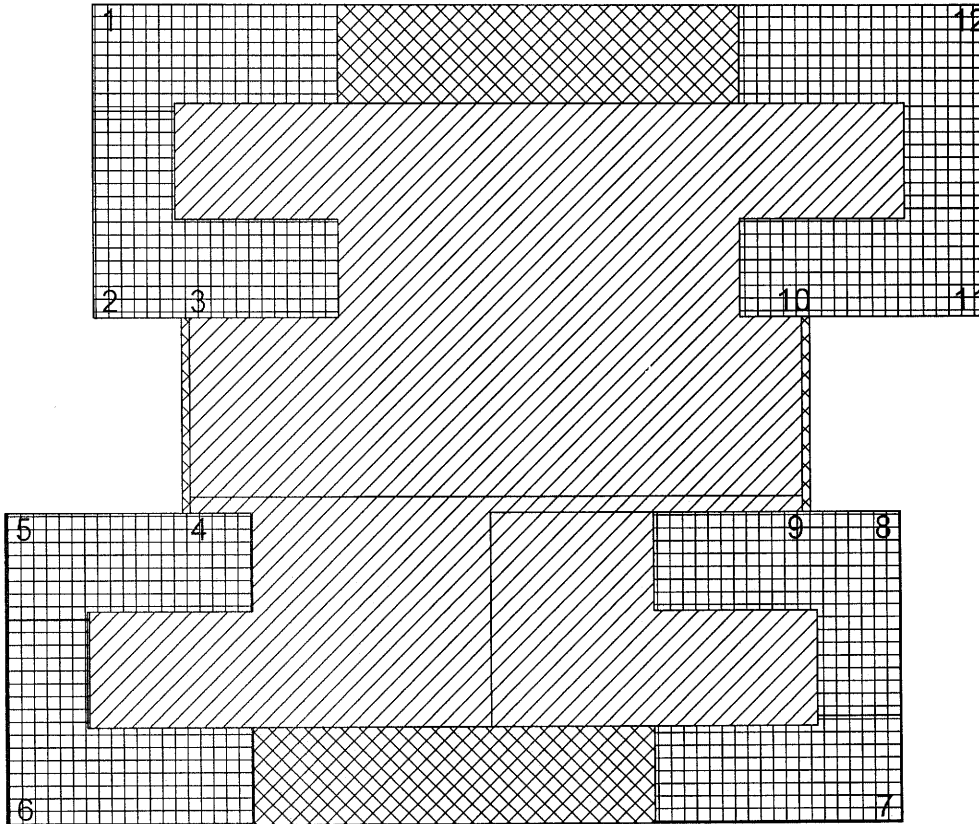
corner: fastener distance = 0.232m; width of membrane = 1.00m(1:2)
external perimeter: fastener distance = 0.179m; width of membrane = 1.00m
internal perimeter: fastener distance = 0.307m; width of membrane = 1.00m

width of perimeter area

width of perimeter	1. =>	2. corner :	9.25m
width of perimeter	2. =>	3. corner :	11.13m
width of perimeter	3. =>	4. corner :	0.00m
width of perimeter	4. =>	5. corner :	11.13m
width of perimeter	5. =>	6. corner :	9.25m
width of perimeter	6. =>	7. corner :	11.13m
width of perimeter	7. =>	8. corner :	9.25m
width of perimeter	8. =>	9. corner :	11.13m
width of perimeter	9. =>	10. corner :	0.00m
width of perimeter	10. =>	11. corner :	11.13m
width of perimeter	11. =>	12. corner :	9.25m
width of perimeter	12. =>	1. corner :	11.13m

width of external perimeter area

width of perimeter	1. =>	2. corner :	1.85m
width of perimeter	2. =>	3. corner :	2.23m
width of perimeter	3. =>	4. corner :	0.20m
width of perimeter	4. =>	5. corner :	2.23m
width of perimeter	5. =>	6. corner :	1.85m
width of perimeter	6. =>	7. corner :	2.23m
width of perimeter	7. =>	8. corner :	1.85m
width of perimeter	8. =>	9. corner :	2.23m
width of perimeter	9. =>	10. corner :	0.20m
width of perimeter	10. =>	11. corner :	2.23m
width of perimeter	11. =>	12. corner :	1.85m
width of perimeter	12. =>	1. corner :	2.23m



 9.78 fast./m² in corner area
  6.35 fast./m² in external perimeter area
  3.71 fast./m² in internal perimeter area
  0.00 fast./m² in inner area

Pay attention to enclosed application manual!

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