



[fibre C]

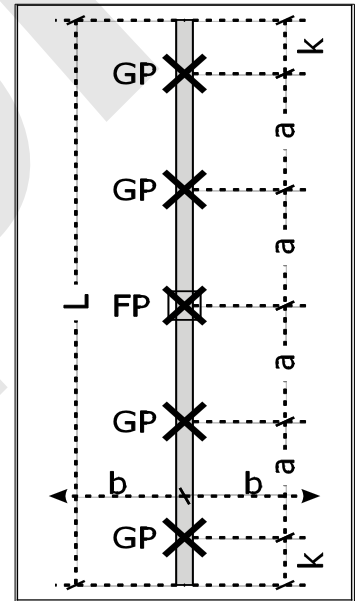
Fibre C appr. 32kg/m²
EuroFOX System MLZ/k-v-00, MacFOX 40

LF. 1

1. OBJECT DATA

Facade height	h	30.00	m
Length of profile	L	4.20	m
MacFOX-Bracket Type	Typ	40	mm
Distance between primary fixings	a	0.87	m
Distance bracket to end of profile (Max.)	k	0.36	m
Vertical spacing between profiles	b	0.45	m

Indicative frame layout: **General Areas (Zone B)**



2. ASSUMED LOADS

Facade weight	g	0.19	kN/m ²
Dynamic pressure	q	1.22	kN/m ²
Windload (1,15.q)	wd	1.40	kN/m ²
Wind suction (1,0.q)	ws	1.22	kN/m ²
Primary fixing strength (SIPS Panel) FP	Dzul	0.48	kN
Secondary fixing strength (SIPS panel) GP	Dzul	0.48	kN

windloads and factors acc. BS 6399-2

3. FIXED POINT BRACKETS (FP)

Assembly at fixed point brackets

Facade weight
Windpressure (horizontal)
Strength coefficient

MacFOX-L-40

4 screws (round holes), 2 primary fixing per bracket

$$G = (g \cdot b \cdot L) = \mathbf{0.36} \text{ kN}$$

$$H = wd \cdot b \cdot a = \mathbf{0.55} \text{ kN}$$

$$\alpha = H/G = 1.53$$

Load: Weight + Windpressure

$G_{zul,4} = 2.43$	kN	$G_N = 2.19$	kN
$G_{zul,H} = 1.53$	kN	$G_D = 0.39$	kN

< Gzul =	0.39
< Hzul =	0.59

4. FLEXIBLE POINT BRACKETS (GP)

Assembly at flexible point brackets
Windsuction (horizontal)

MacFOX-M-40/2x6,5

2 screws (elongated holes), 2 primary fixings

$$H = ws \cdot b \cdot a = \mathbf{0.48} \text{ kN}$$

Load: Windsuction only

$H_{zul} = 0.64$	kN
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< H zul =	0.64
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5. L-Profile 40/60/2,2

From data sheet
Moment of support
Moment of field
Curvature of profile

L-Profile 40/60/2,2 (simplified calculation)

$$M_{x \text{ zul}} = 0.17 \text{ kNm}$$

$$E \cdot I_x = 4.98 \text{ kNm}^2$$

$$M_s = \mathbf{0.05} \text{ kNm}$$

$$M_f = \mathbf{0.02} \text{ kNm}$$

$$f = \mathbf{0.03} \text{ cm}$$

< M zul =	0.17
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< M zul =	0.17
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< a/300 =	0.29
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6. Thermal expansion of profile

Expansion over range of 70° Temp. difference (+10 to+80)

$$\Delta l = L/2 \cdot 70 \cdot 0,0023 = \mathbf{0.34} \text{ cm}$$

< Δlzul =	0.5 (Tol.)
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Cladding Solutions.Calculation - BS 6399-2



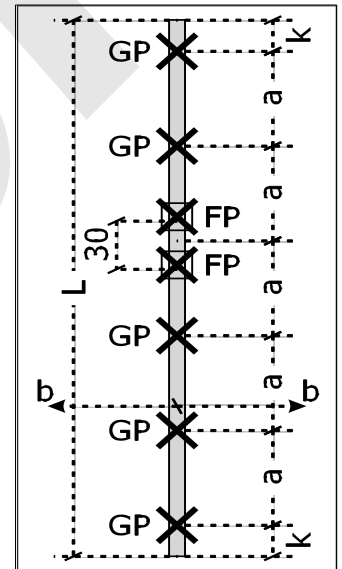
Fibre C appr. 32kg/m²
EuroFOX System MLZ/k-v-00, MacFOX 40

LF. 2

1. OBJECT DATA

Facade height	h	30.00	m
Length of profile	L	4.20	m
MacFOX-Bracket Type	Typ	40	mm
Distance between primary fixings	a	0.70	m
Distance bracket to end of profile (Max.)	k	0.36	m
Vertical spacing between profiles	b	0.40	m

Indicative frame layout: **Corner Areas (Zone A)**



2. ASSUMED LOADS

Facade weight	g	0.19	kN/m ²
Dynamic pressure	q	1.22	kN/m ²
Windload (1,15.q)	wd	1.40	kN/m ²
Wind suction (1,8.q)	ws	2.20	kN/m ²
Primary fixing strength (SIPS Panel) FP	Dzul	0.48	kN
Secondary fixing strength (SIPS panel) GP	Dzul	0.48	kN

windloads and factors acc. BS 6399-2

3. FIXED POINT BRACKETS (FP)

Assembly at fixed point brackets

Facade weight

Windsuction(horizontal)

Strength coefficient

2 x MacFOX-L-40

4 screws (round holes), 2 primary fixing per bracket

$$G = (g \cdot b \cdot L) / 2 = \mathbf{0.16} \text{ kN}$$

$$H = wd \cdot b \cdot a / 2 = \mathbf{0.31} \text{ kN}$$

$$\alpha = H/G = 1.92$$

$$G_{zul,4} = 2.43 \text{ kN}$$

$$G_{zul,H} = 1.10 \text{ kN}$$

Load: Weight + Windsuction

< Gzul =	0.29
< Hzul =	0.56

$$G_N = 1.89 \text{ kN}$$

$$G_D = 0.29 \text{ kN}$$

4. FLEXIBLE POINT BRACKETS (GP)

Assembly at flexible point brackets

Windsuction (horizontal)

MacFOX-M-40/2x6,5

2 screws (elongated holes), 2 primary fixings

$$H = ws \cdot b \cdot a = \mathbf{0.61} \text{ kN}$$

$$H_{zul} = 0.64 \text{ kN}$$

Load: Windsuction only

< H zul =	0.64
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5. L-Profile 40/60/2,2

From data sheet

Moment of support

Moment of field

Curvature of profile

L-Profile 40/60/2,2 (simplified calculation)

$$M_{x \text{ zul}} = 0.17 \text{ kNm}$$

$$E.I_x = 4.98 \text{ kNm}^2$$

$$M_s = \mathbf{0.04} \text{ kNm}$$

$$M_f = \mathbf{0.02} \text{ kNm}$$

$$f = \mathbf{0.04} \text{ cm}$$

< M zul =	0.17
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< M zul =	0.17
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< a/300 =	0.23
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6. Thermal expansion of profile

Expansion over range of 70° Temp. difference (+10 to+80)

$$\Delta l = L/2 \cdot 70 \cdot 0.0023 = \mathbf{0.34} \text{ cm}$$

< Δlzul =	0.5 (Tol.)
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Cladding Solutions.Calculation - BS 6399-2