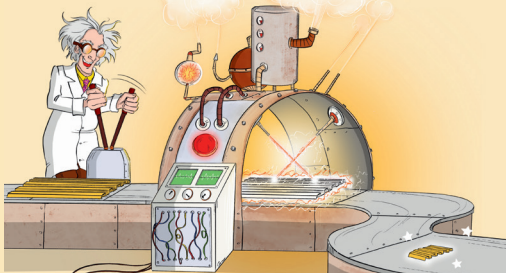
TOYS RANGE

BARO MINI 360



REGISTERED DESIGNS

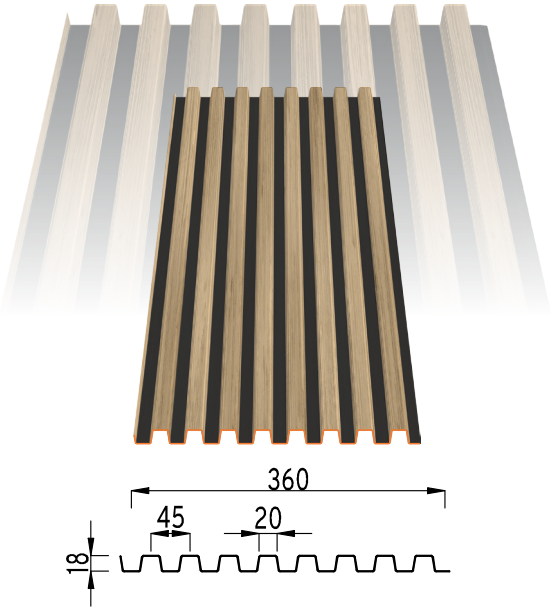
30-YEAR WARRANTY

FIRE : A1
IMPACT : Q4

TRADITIONAL INSTALLATION METHOD

MADE IN FRANCE

DWG, BIM, SKETCHUP FILES TO DOWNLOAD ON OUR WEBSITE



BARO MINI 360 PROFILE

Material	Thickness (mm)	Weight (kg/m²)
Steel S280 GD + Z275	0.63	8.31

Coating	Standard
Polyester 47µ	Coil coating EN 10169
Other Coating	Upon request

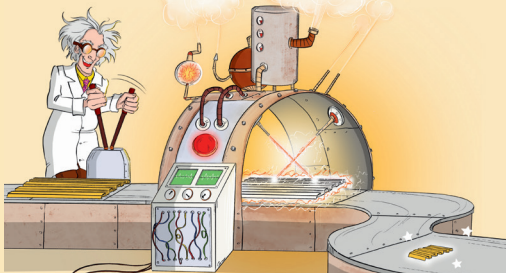
Length of panels : 6000 mm maximum
Vertical installation

DWG files available for download at www.ateliers3s.com

The sheets in the TOYS range are non-structural sheets according to NF EN 14782:2006 standard, according to Professional Recommendations RAGE Cladding from July 2014, not intended to receive EFI anchoring devices according to standard EN 795 over their service life

TOYS RANGE

SPAN TABLE



BARO MINI 360 PROFILE

TABLE OF ALLOWABLE LOADS IN dan/m² BASED ON USAGE SPANS

Deflection limit criterion taken into account: 1/150th according to professional recommendations (RAGE) calculated according to NF EN 1991-1-4

PRESSURE		Span (m)	SUCTION	
2 supports	3 supports		2 supports	3 supports
0.63	0.63	m	0.63	0.63
572	688	**1,00**	572	875
430	517	**1,10**	430	724
331	398	**1,20**	331	608
261	313	**1,30**	261	518
209	251	**1,40**	209	447
170	204	**1,50**	170	389
140	168	**1,60**	140	342
117	140	**1,70**	117	303
98	118	**1,80**	98	255
83	100	**1,90**	83	217
72	86	**2,00**	72	186

Calculations according to Eurocode III Part 1.3

Technical information established in accordance with the provisions of professional recommendations for steel cladding from July 2014.

Technical information established in accordance with the provisions of professional recommendations for steel cladding from July 2014.

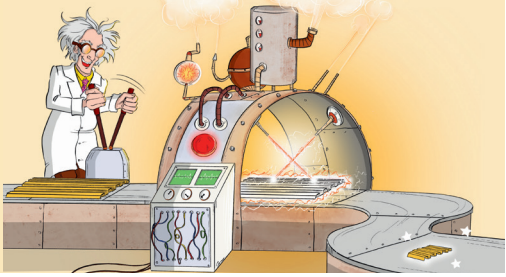
CALCULATION VALUES			SYMBOL	UNITS	THICKNESS mm
					0.63
PRESSURE	Moments of inertia	Minimum	$I_{eff, min}$	cm^4 / ml	5,3
		Maximum	$I_{eff, max}$	cm^4 / ml	5,3
	Resistant bending moments	in span	$M_{t, Rd}$	m.daN/ml	164,2
		on support	$M_{a, Rd}$	m.daN/ml	173,5
	Resistant shear force		$V_{b, Rd}$	daN/ml	7730.3
	Resistant support reaction	edge	$R_{w, Rd,ex}$	daN/ml	2620,3
		intermediate	$R_{w, Rd, in}$	daN/ml	5240,7
SUCTION	Moments of inertia	minimum	$I'_{eff\ min}$	cm^4 / ml	5,3
		maximum	$I'_{eff, max}$	cm^4 / ml	5,3
	Resistant bending moments	in span	$M'_{t, Rd}$	m.daN/ml	173,5
		on support	$M'_{a, Rd}$	m.daN/ml	164,2
	Resistant shear force		$V'_{b, Rd}$	daN/ml	7730,3

Seismic validation: Study report DCC / CLC_12_229_1 from CSTB dated 25/02/201325/02/2013

The sheets in the TOYS range are non-structural sheets according to NF EN 14782:2006 standard, according to Professional Recommendations RAGE Cladding from July 2014, not intended to receive EFI anchoring devices according to standard EN 795 over their service life

TOYS RANGE

CLAIREWOA MINI 440



REGISTERED DESIGNS

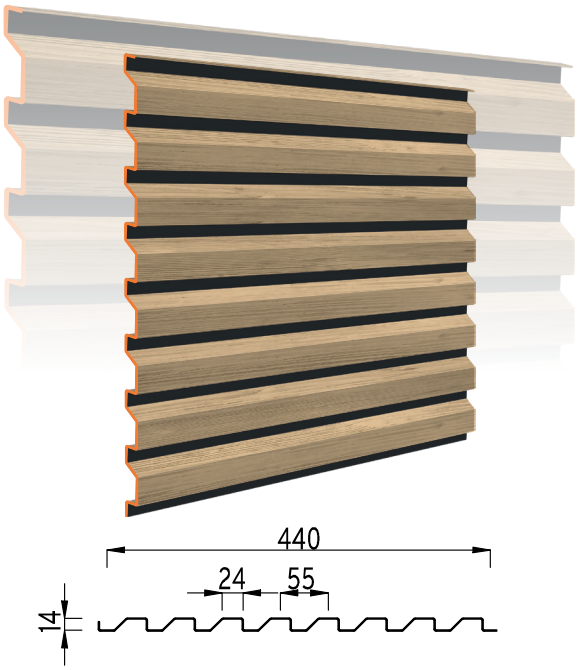
30-YEAR WARRANTY

FIRE : A1
IMPACT : Q4

TRADITIONAL INSTALLATION METHOD

MADE IN FRANCE

DWG, BIM, SKETCHUP FILES TO DOWNLOAD ON OUR WEBSITE



CLAIREWOA MINI 440 PROFILE

Material	Thickness (mm)	Weight (kg/m²)
Steel S280 GD + Z275	0.63	6.80

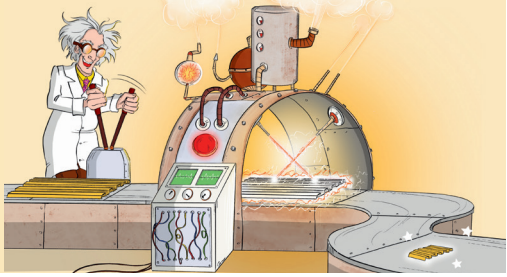
Coating	Standard
Polyester 47µ	Coil coating EN 10169
Other Coating	Upon request

Length of panels : 6000 mm maximum
Horizontal installation

The sheets in the TOYS range are non-structural sheets according to NF EN 14782:2006 standard, according to Professional Recommendations RAGE Cladding from July 2014, not intended to receive EFI anchoring devices according to standard EN 795 over their service life

TOYS RANGE

SPAN TABLES



CLAIREWOA MINI 440 PROFILE

TABLE OF ADMISSIBLE LOADS IN daN/m² ACCORDING TO SPANS OF USE

Deflection limit criterion taken into account: 1/150th according to professional recommendations (RAGE) calculated according to NF EN 1991-1-4

PRESSURE			Span (m)	SUCTION		
2 supports	3 supports	4 supports and more		2 supports	3 supports	4 supports and more
448	746	754	**1.0**	364	721	656
259	548	436	**1.2**	211	515	380
163	345	275	**1.4**	133	325	239
109	231	184	**1.6**	89	217	160
77	162	129	**1.8**	62	153	112
56	118	94	**2.0**	45	111	82
42	89	71	**2.2**	34	84	62
32	68	55	**2.4**	26	64	47
25	54	43	**2.6**	21	51	37
20	43	34	**2.8**	17	41	30
17	35	28	**3.0**	13	33	24

Test report n°R134690349-001-1

Test carried out according to NF P 34-503 standard and interpretation according to annexes E and N of RAGE professional recommendations

Technical information established in accordance with the provisions of professional recommendations for steel cladding from July 2014

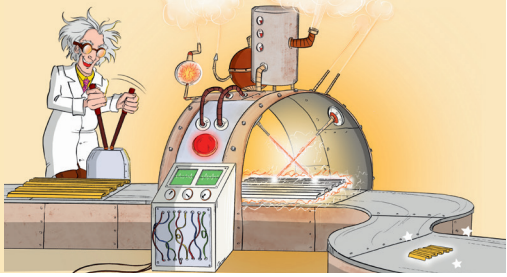
CALCULATION VALUES			SYMBOL	Thickness (mm)
				0.75
PRESSURE	Moments of inertia (cm4/ml)	Single span	I_2	4,16
		2 spans	I_3	3,38
		Continuous	I_m	3,77
	Moments de flexion (daN-m/ml)	Elastic span	M_{2T}	162,93
		On support	M_{3A}	175,93
		Elasto-plastic span	M_{3T}	200,33
	Support reaction under pressure		R_a	1118,77
SUCTION	Moments of inertia (cm4/ml)	Single span	I'_2	3,38
		2 spans	I'_3	3,18
		Continuous	I'_m	3,28
	Moments de flexion (daN-m/ml)	Elastic span	M'_{2T}	159,20
		On support	M'_{3A}	156,81
		Elasto-plastic span	M'_{3T}	186,94
	Support reaction under depression (daN/ml)		S_a	1081.67

Seismic validation: Study report DCC / CLC_12_229_1 from CSTB dated 25/02/2013

The sheets in the TOYS range are non-structural sheets according to standard NF EN 14782:2006, not intended to receive EFI anchoring devices according to standard EN 795 over their service life.

TOYS RANGE

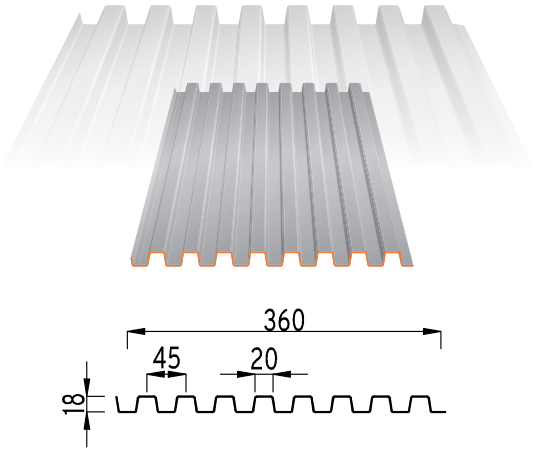
NANO MINI 360



TOYS

RELIEF® BY STARCK®

REGISTERED DESIGNS	30-YEAR WARRANTY FIRE : A1 IMPACT : Q4	TRADITIONAL INSTALLATION METHOD	MADE IN FRANCE	DWG, BIM, SKETCHUP FILES TO DOWNLOAD ON OUR WEBSITE



NANO MINI 360 PROFILE

Material	Thickness (mm)	Weight (kg/m²)
Steel S280 GD + Z275	0.63	8.31

Coating	Standard
Hot dip Galvanized	NF EN 10346
Polyester 35µ THD	Coil coating EN 10169
Polyurethan 50µ	Coil coating EN 10169
Post-lacquered 60µ	
Other coating	Upon request

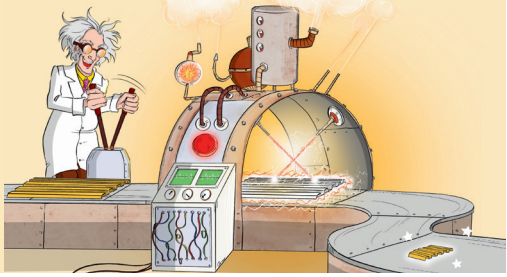
Length of panels : 6000 mm maximum
Vertical installation

DWG files available for download at www.ateliers3s.com

The sheets in the TOYS range are non-structural sheets according to NF EN 14782:2006 standard, according to Professional Recommendations RAGE Cladding from July 2014, not intended to receive EFI anchoring devices according to standard EN 795 over their service life

TOYS RANGE

SPAN TABLE



NANO MINI 360 PROFILE

TABLE OF ALLOWABLE LOADS IN dan/m² BASED ON USAGE SPANS

Deflection limit criterion taken into account: 1/150th according to professional recommendations (RAGE) calculated according to NF EN 1991-1-4

PRESSURE		Span (m)	SUCTION	
2 supports	3 supports		2 supports	3 supports
0.63	0.63	m	0.63	0.63
572	688	**1,00**	572	875
430	517	**1,10**	430	724
331	398	**1,20**	331	608
261	313	**1,30**	261	518
209	251	**1,40**	209	447
170	204	**1,50**	170	389
140	168	**1,60**	140	342
117	140	**1,70**	117	303
98	118	**1,80**	98	255
83	100	**1,90**	83	217
72	86	**2,00**	72	186

Calculations according to Eurocode III Part 1.3

Technical information established in accordance with the provisions of professional recommendations for steel cladding from July 2014.

Technical information established in accordance with the provisions of professional recommendations for steel cladding from July 2014.

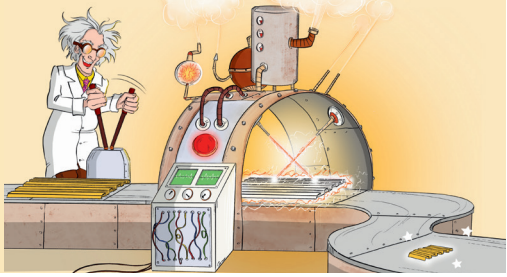
CALCULATION VALUES			SYMBOL	UNITS	THICKNESS mm
					0.63
PRESSURE	Moments of inertia	Minimum	$I_{eff, min}$	cm^4 / ml	5,3
		Maximum	$I_{eff, max}$	cm^4 / ml	5,3
	Resistant bending moments	in span	$M_{t, Rd}$	m.daN/ml	164,2
		on support	$M_{a, Rd}$	m.daN/ml	173,5
	Resistant shear force		$V_{b, Rd}$	daN/ml	7730.3
	Resistant support reaction	edge	$R_{w, Rd,ex}$	daN/ml	2620,3
		intermediate	$R_{w, Rd, in}$	daN/ml	5240,7
SUCTION	Moments of inertia	minimum	$I'_{eff\ min}$	cm^4 / ml	5,3
		maximum	$I'_{eff, max}$	cm^4 / ml	5,3
	Resistant bending moments	in span	$M'_{t, Rd}$	m.daN/ml	173,5
		on support	$M'_{a, Rd}$	m.daN/ml	164,2
	Resistant shear force		$V'_{b, Rd}$	daN/ml	7730,3

Seismic validation: Study report DCC / CLC_12_229_1 from CSTB dated 25/02/2013

The sheets in the TOYS range are non-structural sheets according to NF EN 14782:2006 standard, according to Professional Recommendations RAGE Cladding from July 2014, not intended to receive EFI anchoring devices according to standard EN 795 over their service life

TOYS RANGE

BROOKLYN MINI 460



REGISTERED DESIGNS

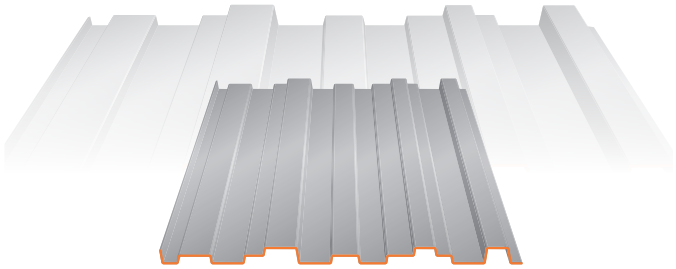
30-YEAR WARRANTY

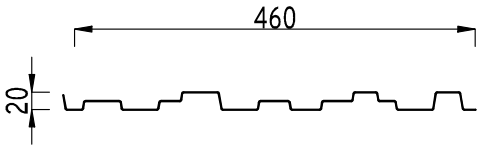
FIRE : A1
IMPACT : Q4

TRADITIONAL INSTALLATION METHOD

MADE IN FRANCE

DWG, BIM, SKETCHUP FILES TO DOWNLOAD ON OUR WEBSITE





BROOKLYN MINI 460 PROFILE

Material	Thickness (mm)	Weight (kg/m²)
Steel S280 GD + Z275	0.63	6.50

Coating	Standard
Hot dip Galvanized	NF EN 10346
Polyester 35µ THD	Coil coating EN 10169
Polyurethan 50µ	Coil coating EN 10169
Post-lacquered 60µ	
Other coating	Upon request

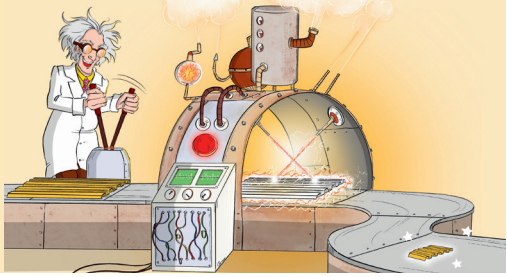
Length of panels : 6000 mm maximum
Vertical installation

DWG files available for download at www.ateliers3s.com

The sheets in the TOYS range are non-structural sheets according to NF EN 14782:2006 standard, according to Professional Recommendations RAGE Cladding from July 2014, not intended to receive EFI anchoring devices according to standard EN 795 over their service life

TOYS RANGE

SPAN TABLE



BROOKLYN MINI 460 PROFILE

TABLE OF ADMISSIBLE LOADS IN daN/m² ACCORDING TO SPANS OF USE

Deflection limit criterion taken into account: 1/150th according to professional recommendations (RAGE) calculated according to NF EN 1991-1-4

PRESSURE			Span (m)	SUCTION		
2 supports	3 supports	4 supports and more		2 supports	3 supports	4 supports and more
476	476	488	**1.0**	507	418	428
358	397	407	**1.2**	293	349	357
225	340	349	**1.4**	185	299	298
151	298	245	**1.6**	124	261	199
106	239	172	**1.8**	87	193	140
77	174	125	**2.0**	63	140	102
58	131	94	**2.2**	48	106	77
45	101	73	**2.4**	37	81	59
35	79	57	**2.6**	29	64	46
28	63	46	**2.8**	23	51	37
23	52	37	**3.0**	19	42	30

Test report n°R134294023-001-1

apave Test carried out according to NF P 34-503 standard and interpretation according to annexes E and N of RAGE professional recommendations

Technical information established in accordance with the provisions of professional recommendations for steel cladding from July 2014

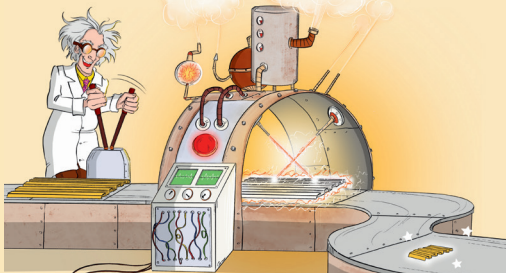
CALCULATION VALUES			SYMBOL	THICKNESS mm
				0.63
PRESSURE	Moments of inertia (cm4/ml)	Single span	I_2	5,38
		2 spans	I_3	4,66
		Continuous	I_m	5,02
	Bending moment (daN-m/ml)	Elastic span	M_{2T}	105,08
		On support	M_{3A}	138,80
		Elasto-plastic span	M_{3T}	151,33
Support reaction under pressure (daN/ ml)			R_a	669,34
SUCTION	Moments of inertia (cm4/ml)	Single span	I'_2	4,41
		2 spans	I'_3	3,76
		Continuous	I'_m	4,08
	Bending moment (daN-m/ml)	Elastic span	M'_{2T}	97,06
		On support	M'_{3A}	124,05
		Elasto-plastic span	M'_{3T}	134,80
Support reaction under depression (daN/ ml)			S_a	587,61

Seismic validation: Study report DCC / CLC_12_229_1 from CSTB dated 25/02/2013

The sheets in the TOYS range are non-structural sheets according to standard NF EN 14782:2006, not intended to receive EFI anchoring devices according to standard EN 795 over their service life.

TOYS RANGE

CADENCE MINI SQUARE



TOYS

CADENCE

REGISTERED DESIGNS

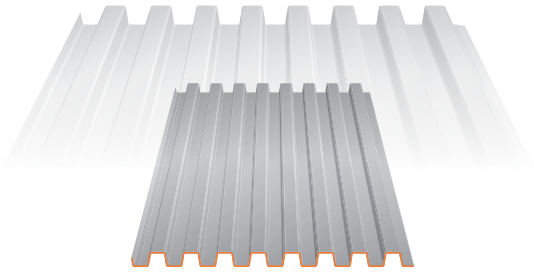
30-YEAR WARRANTY

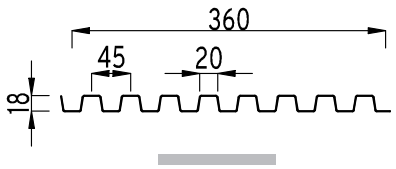
FIRE : A1
IMPACT : Q4

TRADITIONAL INSTALLATION METHOD

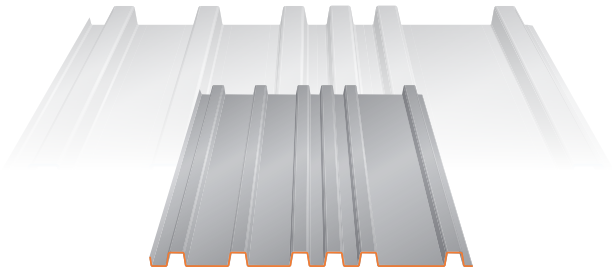
MADE IN FRANCE

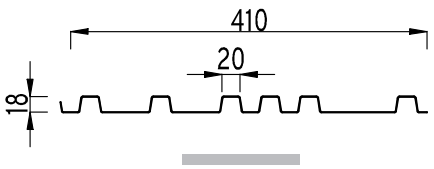
DWG, BIM, SKETCHUP FILES TO DOWNLOAD ON OUR WEBSITE





CADENCE C Mini 360®





CADENCE C Mini 410®

CADENCE MINI SQUARE PROFILE

Material	Thickness (mm)	Weight (kg/m²)
Steel S280 GD + Z275	0.63	8.31

Material	Thickness (mm)	Weight (kg/m²)
Steel S280 GD + Z275	0.63	7.30

Length of panels : 6000 mm maximum
Vertical installation

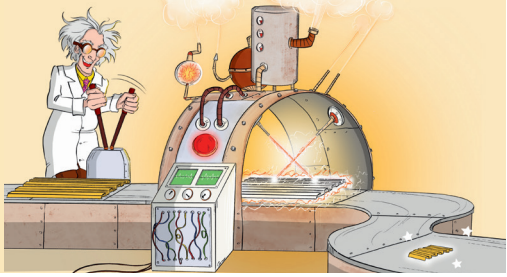
Coating	Standard
Hot dip Galvanized	NF EN 10346
Polyester 35µ THD	Coil coating EN 10169
Polyurethan 50µ	Coil coating EN 10169
Post-lacquered 60µ	
Other coating	Upon request

DWG files available for download at www.ateliers3s.com

The sheets in the TOYS range are non-structural sheets according to NF EN 14782:2006 standard, according to Professional Recommendations RAGE Cladding from July 2014, not intended to receive EFI anchoring devices according to standard EN 795 over their service life

TOYS RANGE

SPAN TABLE



PROFILE CADENCE MINI SQUARE PROFILE

TABLE OF ADMISSIBLE LOADS IN daN/m² ACCORDING TO SPANS OF USE

Limit state criterion taken into account: 1/150th according to professional recommendations

PRESSION			Span (m)	DEPRESSION		
2 supports	3 supports	4 supports and more		2 supports	3 supports	4 supports and more
597	597	612	**1.0**	521	478	489
426	498	510	**1.2**	301	398	408
269	427	422	**1.4**	190	341	320
180	327	283	**1.6**	127	299	215
126	259	198	**1.8**	89	219	151
92	193	145	**2.0**	65	159	110
69	145	109	**2.2**	49	120	83
53	112	84	**2.4**	38	92	64
42	88	66	**2.6**	30	73	50
34	70	53	**2.8**	24	58	40
27	57	43	**3.0**	19	47	33

Test report n°R134294625-001-1

apave Test carried out according to NF P 34-503 standard and interpretation according to annexes E and N of RAGE professional recommendations

Technical information established in accordance with the provisions of professional recommendations for steel cladding from July 2014

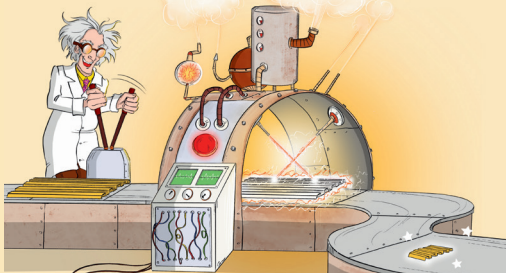
CALCULATION VALUES			SYMBOL	THICKNESS mm
				0.63
PRESSURE	Moments of inertia (cm4/ml)	Single span	I_2	6,41
		2 spans	I_3	5,16
		Continuous	I_m	5,79
	Bending moment (daN-m/ml)	Elastic span	M_{2T}	166,78
		On support	M_{3A}	117,67
		Elasto-plastic span	M_{3T}	219,07
	Support reaction under pressure (daN/ ml)		R_a	839,16
SUCTION	Moments of inertia (cm4/ml)	Single span	I'_2	4,53
		2 spans	I'_3	4,26
		Continuous	I'_m	4,40
	Bending moment (daN-m/ml)	Elastic span	M'_{2T}	144,54
		On support	M'_{3A}	166,46
		Elasto-plastic span	M'_{3T}	173,34
	Support reaction under depression (daN/ ml)		S_a	671,05

Seismic validation: Study report DCC / CLC_12_229_1 from CSTB dated 25/02/2013

The sheets in the TOYS range are non-structural sheets according to standard NF EN 14782:2006, not intended to receive EFI anchoring devices according to standard EN 795 over their service life.

TOYS RANGE

CADENCE MINI TRIANGLE



TOYS

CADENCE

REGISTERED DESIGNS

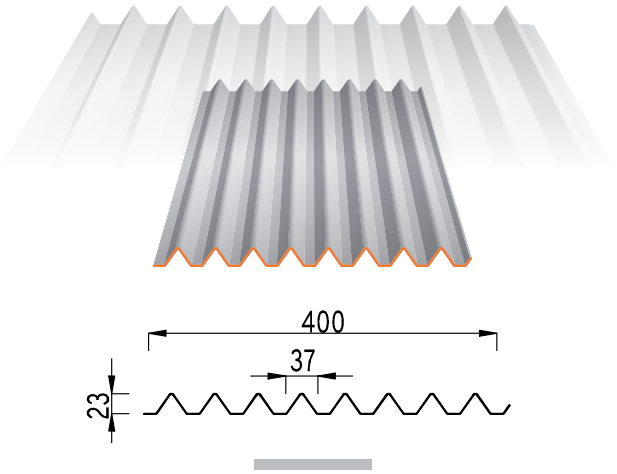
30-YEAR WARRANTY

FIRE : A1
IMPACT : Q4

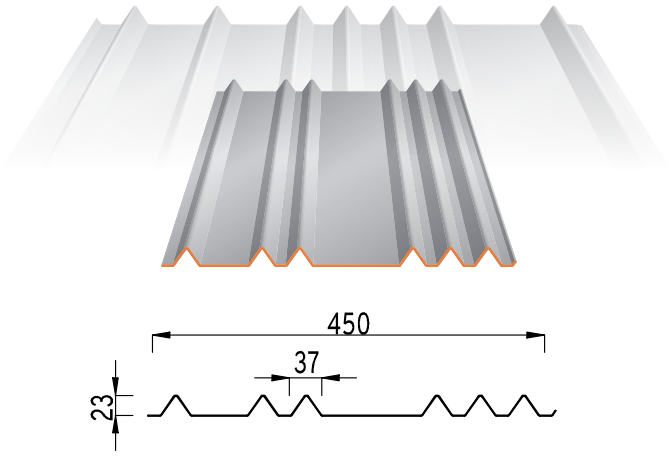
TRADITIONAL INSTALLATION METHOD

MADE IN FRANCE

DWG, BIM, SKETCHUP FILES TO DOWNLOAD ON OUR WEBSITE



CADENCE T Mini 400®



CADENCE T Mini 450®

CADENCE MINI TRIANGLE PROFILE

Material	Thickness (mm)	Weight (kg/m²)
Steel S280 GD + Z275	0.63	7.48

Material	Thickness (mm)	Weight (kg/m²)
Steel S280 GD + Z275	0.63	6.65

Length of panels : 6000 mm maximum
Vertical installation

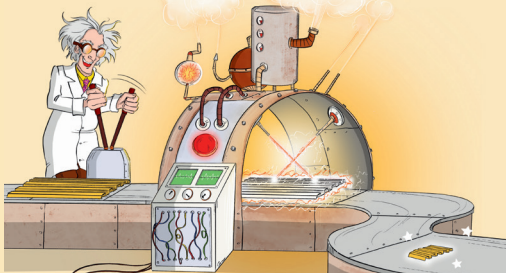
Coating	Standard
Hot dip Galvanized	NF EN 10346
Polyester 35µ THD	Coil coating EN 10169
Polyurethan 50µ	Coil coating EN 10169
Post-lacquered 60µ	
Other coating	Upon request

DWG files available for download at www.ateliers3s.com

The sheets in the TOYS range are non-structural sheets according to NF EN 14782:2006 standard, according to Professional Recommendations RAGE Cladding from July 2014, not intended to receive EFI anchoring devices according to standard EN 795 over their service life

TOYS RANGE

SPAN TABLE



CADENCE MINI TRIANGLE PROFILE

TABLE OF ADMISSIBLE LOADS IN daN/m² ACCORDING TO SPANS OF USE

Deflection limit criterion taken into account: 1/150th according to professional recommendations (RAGE) calculated according to NF EN 1991-1-4

PRESSION			Span (m)	DEPRESSION		
2 supports	3 supports	4 supports and more		2 supports	3 supports	4 supports and more
659	664	727	**1.0**	420	421	460
381	554	606	**1.2**	243	351	384
240	475	416	**1.4**	153	301	319
161	362	279	**1.6**	103	263	213
113	254	196	**1.8**	72	232	150
82	185	143	**2.0**	52	169	109
62	139	107	**2.2**	39	127	82
48	107	83	**2.4**	30	98	63
37	84	65	**2.6**	24	77	50
30	67	52	**2.8**	19	62	40
24	55	42	**3.0**	16	50	32

Test report n°R134661203-001-1

Test carried out according to NF P 34-503 standard and interpretation according to annexes E and N of RAGE professional recommendations

Technical information established in accordance with the provisions of professional recommendations for steel cladding from July 2014

CALCULATION VALUES			SYMBOL	THICKNESS mm
				0.63
PRESSURE	Moments of inertia (cm4/ml)	Single span	I_2	6,12
		2 spans	I_3	5,29
		Continuous	I_m	5,70
	Bending moment (daN-m/ml)	Elastic span	M_{2T}	164,57
		On support	M_{3A}	174,96
		Elasto-plastic span	M_{3T}	208,98
	Support reaction under pressure (daN/ ml)		R_a	996,71
SUCTION	Moments of inertia (cm4/ml)	Single span	I'_2	3,90
		2 spans	I'_3	4,84
		Continuous	I'_m	4,37
	Bending moment (daN-m/ml)	Elastic span	M'_{2T}	157,85
		On support	M'_{3A}	132,56
		Elasto-plastic span	M'_{3T}	166,15
	Support reaction under depression (daN/ ml)		S_a	631,60

Seismic validation: Study report DCC / CLC_12_229_1 from CSTB dated 25/02/2013

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