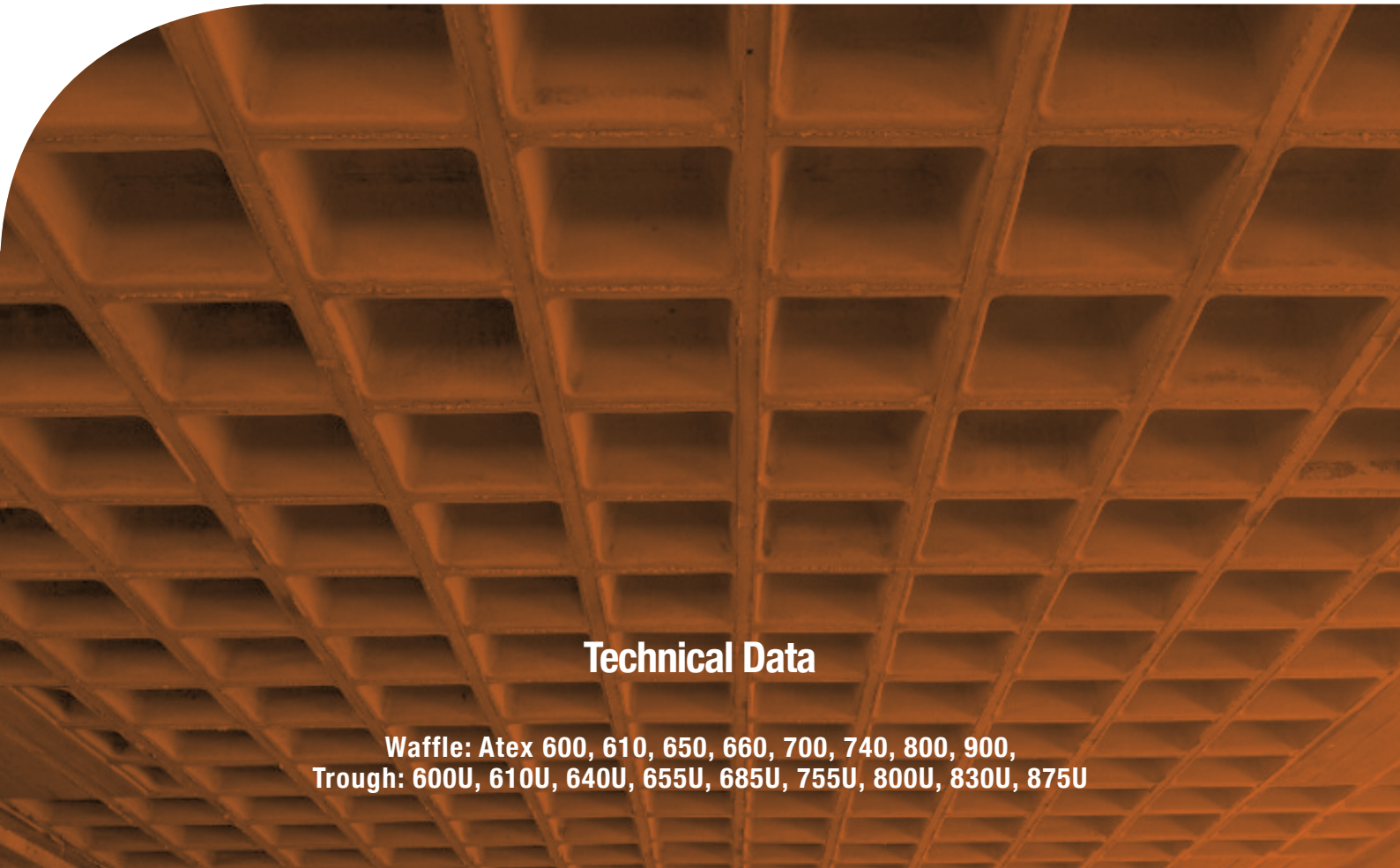
Formworks for Ribbed Slabs

atex
the slab formwork



Technical Data

Waffle: Atex 600, 610, 650, 660, 700, 740, 800, 900,
Trough: 600U, 610U, 640U, 655U, 685U, 755U, 800U, 830U, 875U

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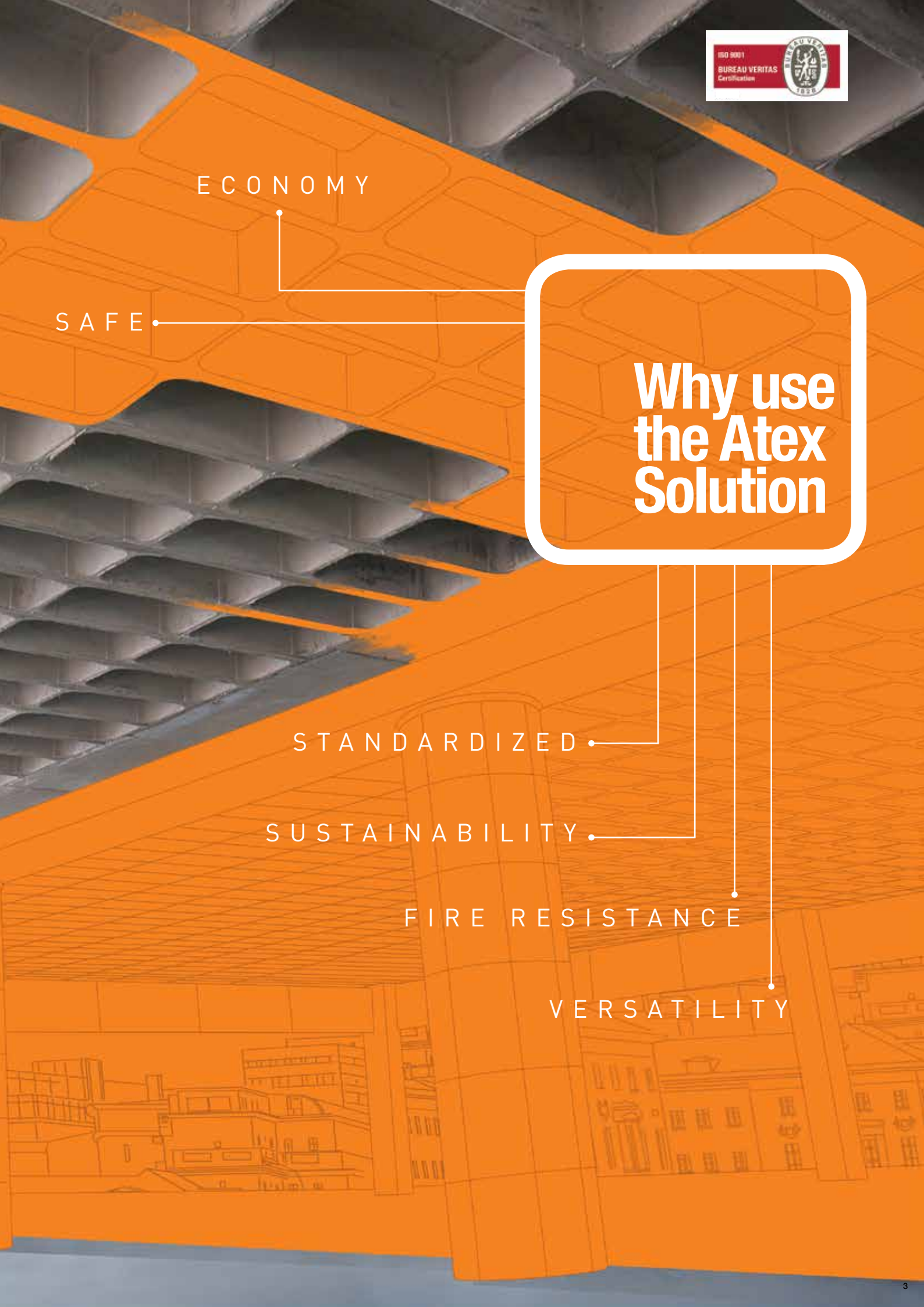
More than 500.000.000 sf built with Atex system

Atex has always dedicated itself to innovative and pioneering solutions for the civil construction market, by means of slab moulds.
The Waffle Slab is a modern solution with ribbing connected by a cover or compression layer.


ECONOMY
SAFE
Why use the Atex Solution
STANDARDIZED
SUSTAINABILITY
FIRE RESISTANCE
VERSATILITY

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Atex products conform to the sustainable needs of the planet.

The company`s moulds eliminate the need for cutting down trees.

SUSTAINABILITY

Its use reduces CO2 emissions by eliminating the use of wood during the construction and by decreasing the use of concrete and steel. **Complies to LEED Certification with 27% of the required score.**

Committed to conduct business that generates positive economic results and benefits both the company and the customer, Atex products ensure cost savings during construction, ensuring higher productivity for projects and the entrepreneurs involved.

Reduced use of concrete and steel

Up to 40%
of reduction in the use of these materials.

ECONOMY

As it is deeper than the regular slabs with the same inertia levels, the Waffle Slab reduces the need for the use of steel, thus lending feasibility to the construction of larger spans, with fewer columns and reduced concrete consumption.

The total weight of a building with Waffle slabs is at least 15% lighter. As a result, excavation, foundation and construction costs are proportionally reduced.

Compared to traditional slabs, the Waffle Slab is more economic as it dispenses with the use of any concrete that has no structural function.

Atex means Economy.

With more than 120 types that can be used in any kind of project

Creating an intelligent and economic solution for different structural designs

VERSATILITY

Waffle slab with beams, waffle slab on wide beams, waffle slab on drop panels, waffle slab on precast, waffle slab on metal frame works, waffle slab with horizontal holes and prestressed waffle slab.

The company has a solution for solid slabs - Planex System, as well.

Atex means flexibility.

Atex waffle moulds can be re-used over 150 times

Atex waffle moulds are manufactured in Polypropylene. This hard wearing material allows, with reasonable care, for the moulds to be re-used over and over again (over 150 times). It reduces the impact on the environment as well as the amount of concrete and steel needed.

Atex means Sustainability.

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Industrialization of the construction process

SUPPORT SYSTEM

Standardized, clean, safe projects without the need for specialized labor. Easy assembly and removal of moulds, all done by hand.

Building of huge free spans

Waffle Slabs are ideal for the construction of spacious spans, using fewer columns.

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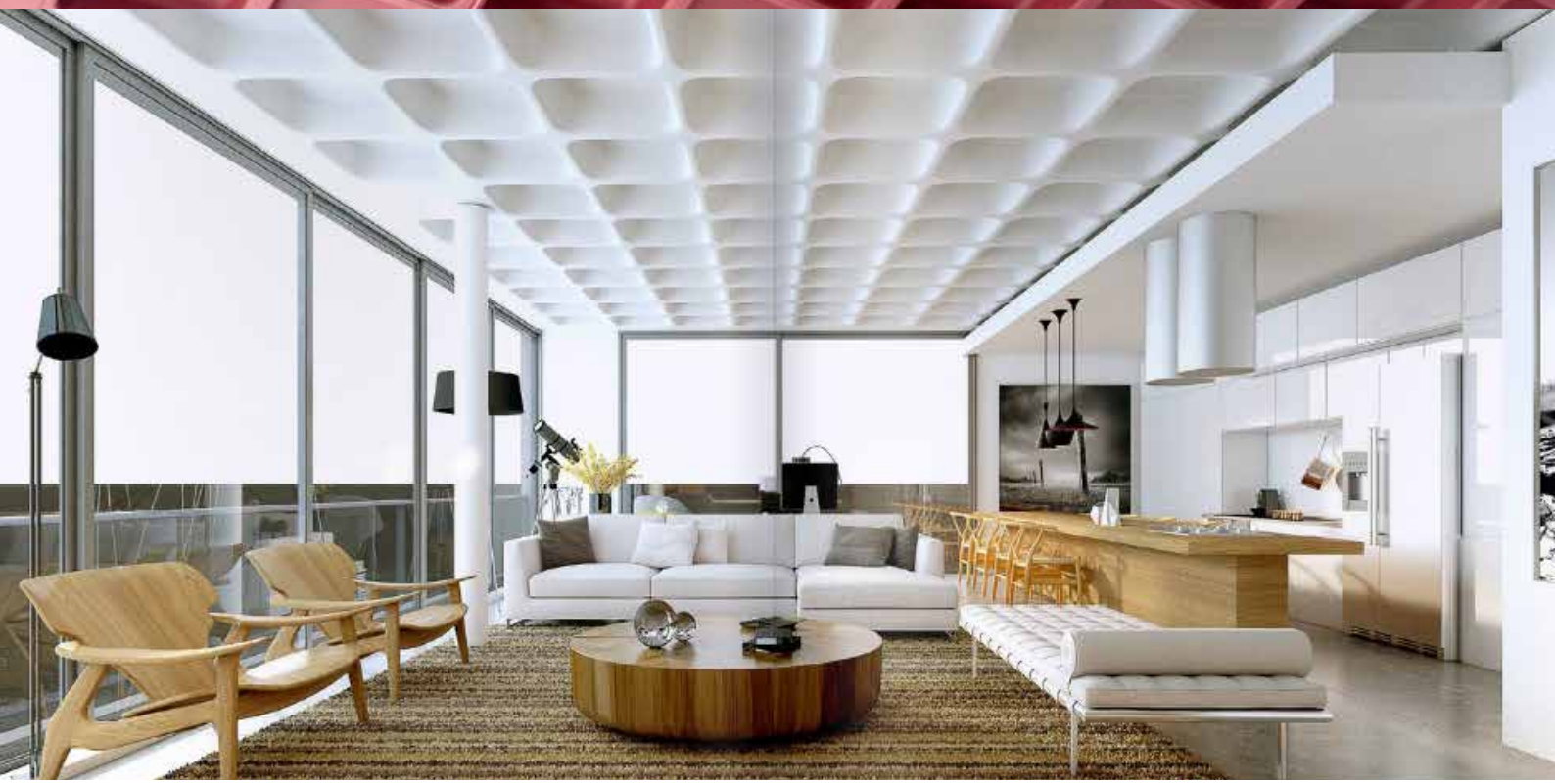
Reference in design



The use of Waffle Slabs in commercial and residential projects has become a trend in interior design and architecture.

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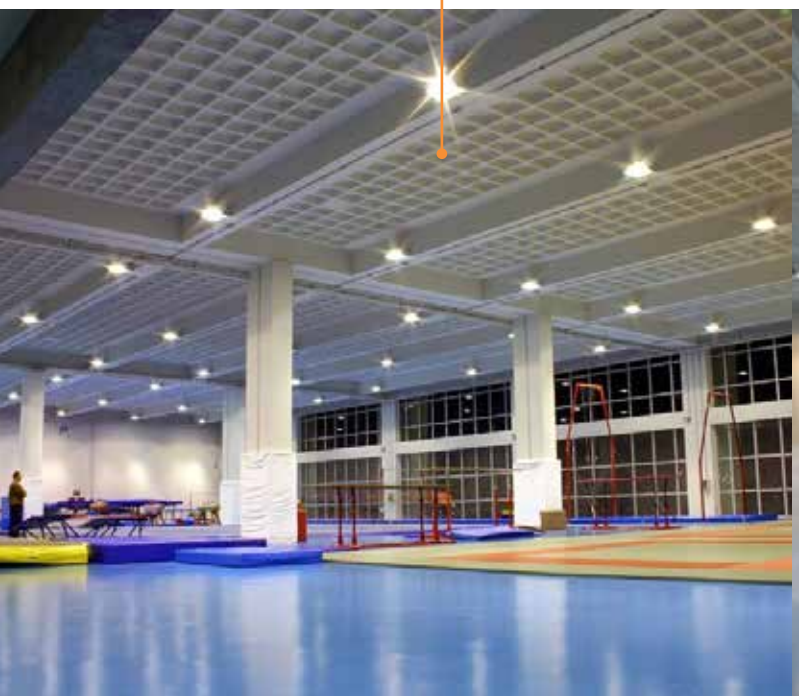
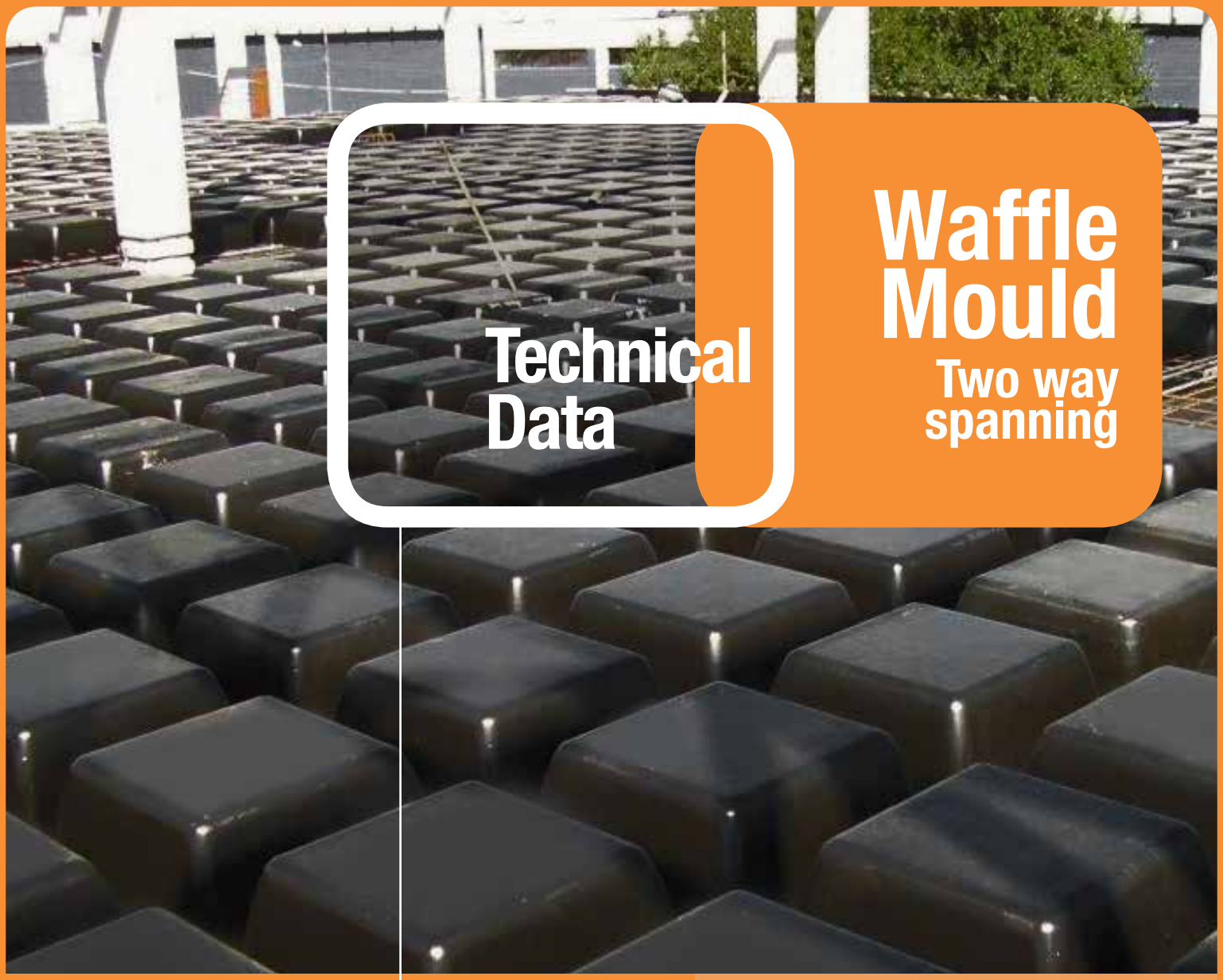
Safe

The moulds have been tested by the British Construction Industry Research and Information Association and copies of this detailed report, 107 are available from the Association.

Follows the directives of ACI - Eurocode in case of a fire

Extensive testing to determine the best material, internal ribbing design and load capacity at varying temperatures resulted in a high quality mold. They have been used in a wide variety of climates and temperatures, from Iceland to Saudi Arabia.



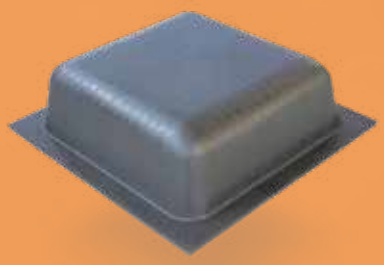


Technical Data

Waffle Mould

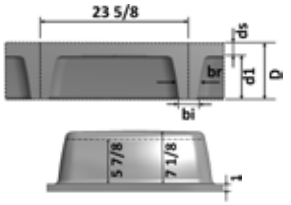
Two way spanning

Two way in situ spanning offers greater flexibily for interior planning and design providing an attractive softfit finish which can be left exposed or painted



ATEX 600

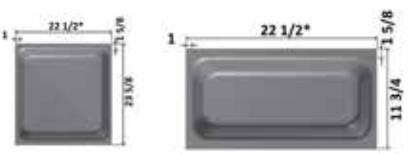
Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Compar-ing: solid slab height				
in	in	in	in	in	in	in²	in	in	in⁴	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
5 7/8	2	7 7/8	2 3/8	9 3/4	3 1/8	65	2	5 7/8	247	5	1,45	0,37	45	0,28
7 1/8	2	9	3 1/8	12 1/2	4	75	2 5/8	6 1/2	455	6 1/8	1,59	0,41	55	0,34
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	



atex 600x150

*Used with ruler guide 1 1/8" wide (Detail 1)

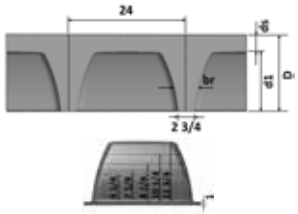
atex 600x180



*Used with ruler guide 1 1/8" wide (Detail 1)

ATEX 610

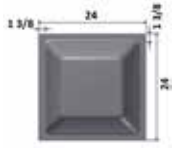
Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Com-paring: solid slab height				
in	in	in	in	in	in	in²	in	in	in4	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
6 1/4	2	8 1/4	2 3/4	3 7/8	3 3/8	68	2 1/4	6 1/8	310	5 3/8	1,55	0,39	48	0,30
	3	9 1/4				92	2 1/2	6 3/4	439	6			61	0,38
	3 7/8	10 1/4				115	2 7/8	7 3/8	608	6 3/4			74	0,46
7 1/8	2	9	2 3/4	3 7/8	3 3/8	71	2 1/2	6 5/8	407	5 7/8	1,77	0,44	51	0,32
	3	10				95	2 5/8	7 3/8	560	6 1/2			64	0,40
	3 7/8	11				118	3	8	751	7 1/4			77	0,48
8 1/4	2	10 1/4	2 3/4	4 3/4	3 3/4	79	2 7/8	7 3/8	612	6 3/4	1,94	0,49	58	0,36
	3	11 1/4				102	3 1/8	8 1/8	819	7 1/2			71	0,45
	3 7/8	12 1/4				126	3 3/8	8 7/8	1065	8 1/8			84	0,53
10 1/4	2	12 1/4	2 3/4	5 7/8	4 1/4	91	3 5/8	8 5/8	1068	8 1/8	2,30	0,57	71	0,44
	3	13 1/4				115	3 3/4	9 3/8	1389	8 7/8			84	0,52
	3 7/8	14 1/8				138	4	10 1/8	1745	9 5/8			97	0,61
11 3/4	2	13 3/4	2 3/4	6 3/4	4 3/4	104	4 1/4	9 1/2	1572	9 1/4	2,54	0,63	82	0,52
	3	14 3/4				127	4 3/8	10 3/8	2011	10			95	0,60
	3 7/8	15 3/4				151	4 5/8	11 1/8	2485	10 3/4			108	0,68
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	



atex 610 (Rectangular)

*Used with ruler guide 1 1/8" wide (Detail 1)

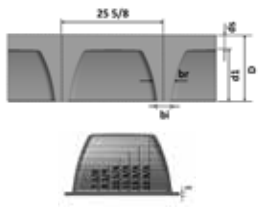
atex 610 (Square)



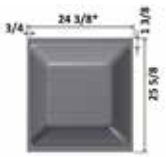
*It can be provided with cut 1 3/8"x 1 3/8" for fixed prop (Atex 610R)

ATEX 650

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Com-paring: solid slab height				
in	in	in	in	in	in	in²	in	in	in4	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
7 1/8	2	9	2 3/4	3 5/8	3 1/4	73	2 3/8	6 3/4	414	5 3/4	2,05	0,45	49	0,31
	3	10				98	2 5/8	7 1/2	566	6 3/8			62	0,39
	3 7/8	11				123	3	8 1/8	759	7 1/8			75	0,47
8 1/4	2	10 1/4	2 3/4	3 7/8	3 1/4	78	2 3/4	7 1/2	605	6 5/8	2,37	0,52	53	0,33
	3	11 1/4				103	2 7/8	8 1/4	802	7 1/4			66	0,41
	3 7/8	12 1/4				128	3 1/4	9	1038	7 7/8			79	0,50
10 1/4	2	12 1/4	2 3/4	4 5/8	3 5/8	88	3 3/8	8 3/4	1052	7 7/8	2,86	0,63	62	0,39
	3	13 1/4				113	3 1/2	9 5/8	1353	8 5/8			75	0,47
	3 7/8	14 1/8				138	3 3/4	10 3/8	1688	9 1/4			88	0,55
11 3/4	2	13 3/4	2 3/4	5 1/8	3 7/8	97	4	9 3/4	1534	9	3,21	0,71	71	0,44
	3	14 3/4				122	4	10 3/4	1944	9 5/8			84	0,52
	3 7/8	15 3/4				147	4 1/4	11 1/2	2380	10 3/8			97	0,61
13 3/4	2	15 3/4	2 3/4	5 7/8	4 3/8	110	4 3/4	11	2327	10 3/8	3,60	0,79	83	0,52
	3	16 3/4				135	4 3/4	11 7/8	2910	11 1/8			96	0,60
	3 7/8	17 3/4				160	5	12 3/4	3511	11 3/4			109	0,69
15 3/4	2	17 3/4	2 3/4	6 7/8	4 3/4	126	5 5/8	12 1/8	3376	11 5/8	3,96	0,87	97	0,61
	3	18 3/4				151	5 5/8	13 1/8	4179	12 1/2			110	0,69
	3 7/8	19 5/8				176	5 3/4	14	4990	13 1/4			123	0,77
8 1/4	2	10 1/4	2	3 1/2	2 3/4	73	2 1/2	7 3/4	500	6 1/8	2,51	0,55	48	0,30
	3	11 1/4				98	2 5/8	8 1/2	665	6 3/4			61	0,38
	3 7/8	12 1/4				124	3	9	870	7 3/8			74	0,47
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	



atex 650 (Rectangular)



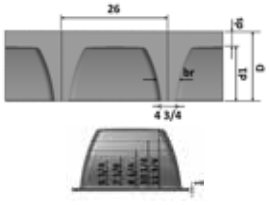
*Used with ruler guide 1 1/8" wide (Detail 1)

atex 650 (Square)

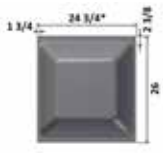
*It can be provided with cut 13/8"x 1 3/8",for fixed prop (Atex 650R)

ATEX 660

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Com-paring: solid slab height				
in	in	in	in	in	in	in²	in	in	in⁴	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
6 1/4	2	8 1/4	4 3/4	5 7/8	5 3/8	85	2 1/2	5 3/4	460	6	1,55	0,33	57	0,36
	3	9 1/4				110	2 7/8	6 3/8	648	6 3/4			70	0,44
	3 7/8	10 1/4				136	3 1/4	7	881	7 3/8			83	0,52
7 1/8	2	9	4 3/4	5 7/8	5 3/8	89	2 7/8	6 1/4	603	6 1/2	1,77	0,38	60	0,38
	3	10				114	3 1/8	7	828	7 1/4			73	0,46
	3 7/8	11				140	3 3/8	7 5/8	1099	8			86	0,54
8 1/4	2	10 1/4	4 3/4	6 3/4	5 3/4	99	3 3/8	6 7/8	886	7 1/2	1,94	0,41	70	0,44
	3	11 1/4				124	3 1/2	7 5/8	1187	8 1/4			83	0,52
	3 7/8	12 1/4				150	3 7/8	8 3/8	1533	8 7/8			96	0,60
10 1/4	2	12 1/4	4 3/4	7 3/4	6 1/4	115	4 1/8	8 1/8	1512	8 7/8	2,30	0,49	84	0,53
	3	13 1/4				141	4 1/4	8 7/8	1969	9 5/8			97	0,61
	3 7/8	14 1/8				166	4 1/2	9 5/8	2468	10 3/8			110	0,69
11 3/4	2	13 3/4	4 3/4	8 3/4	6 3/4	131	4 3/4	9	2193	10	2,54	0,54	97	0,61
	3	14 3/4				156	4 7/8	9 7/8	2808	10 7/8			110	0,69
	3 7/8	15 3/4				182	5 1/8	10 5/8	3464	11 3/4			123	0,77
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	

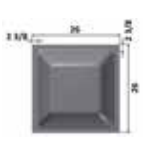


atex 660 (Rectangular)



*Used with ruler guide 1 1/8" wide (Detail 1)

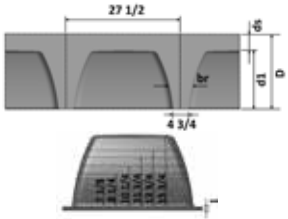
atex 660 (Square)



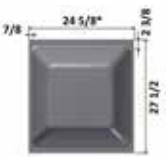
*It can be provided with cut 2 x 2" for fixed prop (Atex 660R)

ATEX 700

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Com-paring: solid slab height				
in	in	in	in	in	in	in²	in	in	in⁴	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
7 1/8	2	9	4 3/4	5 5/8	5 1/8	91	2 3/4	6 1/4	598	6 3/8	2,05	0,39	58	0,37
	3	10				118	3	7	822	7 1/8			72	0,45
	3 7/8	11				145	3 3/8	7 5/8	1093	7 3/4			85	0,53
8 1/4	2	10 1/4	4 3/4	5 7/8	5 3/8	98	3 1/4	7	864	7 1/4	2,37	0,45	64	0,40
	3	11 1/4				125	3 3/8	7 7/8	1157	8			77	0,49
	3 7/8	12 1/4				153	3 3/4	8 1/2	1495	8 5/8			90	0,57
10 1/4	2	12 1/4	4 3/4	6 1/2	5 5/8	111	4	8 1/4	1461	8 5/8	2,86	0,54	76	0,48
	3	13 1/4				139	4 1/8	9 1/8	1899	9 3/8			89	0,56
	3 7/8	14 1/8				166	4 3/8	9 7/8	2377	10 1/8			102	0,64
11 3/4	2	13 3/4	4 3/4	7 1/8	5 7/8	124	4 5/8	9 1/8	2103	9 3/4	3,21	0,61	86	0,54
	3	14 3/4				151	4 5/8	10 1/8	2691	10 1/2			99	0,62
	3 7/8	15 3/4				178	4 7/8	10 7/8	3312	11 1/4			112	0,70
13 3/4	2	15 3/4	4 3/4	7 7/8	6 1/4	141	5 1/2	10 1/4	3138	11 1/8	3,60	0,68	100	0,63
	3	16 3/4				168	5 1/2	11 1/4	3949	12			113	0,71
	3 7/8	17 3/4				195	5 5/8	12	4789	12 3/4			126	0,79
15 3/4	2	17 3/4	4 3/4	8 3/4	6 3/4	160	6 3/8	11 3/8	4479	12 1/2	3,96	0,75	115	0,73
	3	18 3/4				187	6 3/8	12 3/8	5558	13 3/8			128	0,81
	3 7/8	19 5/8				215	6 1/2	13 1/4	6660	14 1/4			142	0,89
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	

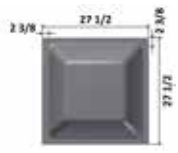


atex 700 (Rectangular)



*Used with ruler guide 3" wide (Detail 2)

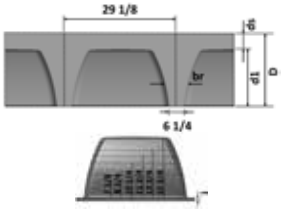
atex 700 (Square)



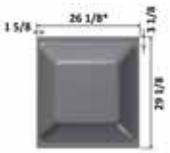
*It can be provided with cut 2x2" for fixed prop (Atex 700R)

ATEX 740

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Com-paring: solid slab height				
in	in	in	in	in	in	in²	in	in	in4	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
7 1/8	2	9	6 1/4	7 1/4	6 3/4	105	3	6 1/8	734	6 3/4	2,05	0,35	65	0,41
	3	10				134	3 1/4	6 3/4	1013	7 1/2			78	0,49
	3 7/8	11				163	3 5/8	7 1/2	1345	8 1/4			91	0,57
8 1/4	2	10 1/4	6 1/4	7 3/8	6 7/8	114	3 1/2	6 3/4	1054	7 1/2	2,37	0,4	72	0,45
	3	11 1/4				143	3 5/8	7 1/2	1416	8 3/8			85	0,53
	3 7/8	12 1/4				171	3 7/8	8 1/4	1830	9 1/8			98	0,62
10 1/4	2	12 1/4	6 1/4	8	7 1/8	131	4 1/4	7 7/8	1773	9	2,86	0,49	85	0,53
	3	13 1/4				159	4 3/8	8 3/4	2314	9 7/8			98	0,61
	3 7/8	14 1/8				188	4 5/8	9 1/2	2901	10 5/8			111	0,70
11 3/4	2	13 3/4	6 1/4	8 5/8	7 1/2	146	5	8 7/8	2540	10 1/8	3,21	0,54	96	0,60
	3	14 3/4				174	5	9 3/4	3257	11			109	0,69
	3 7/8	15 3/4				203	5 1/4	10 1/2	4017	11 7/8			122	0,77
13 3/4	2	15 3/4	6 1/4	9 1/2	7 7/8	166	5 7/8	9 7/8	3770	11 5/8	3,60	0,61	112	0,70
	3	16 3/4				195	5 7/8	10 7/8	4750	12 1/2			125	0,78
	3 7/8	17 3/4				223	6 1/8	11 5/8	5768	13 3/8			138	0,87
15 3/4	2	17 3/4	6 1/4	10 3/8	8 1/4	188	6 3/4	11	5361	13	3,96	0,67	128	0,80
	3	18 3/4				217	6 3/4	12	6650	14			141	0,89
	3 7/8	19 5/8				246	6 7/8	12 3/4	7973	14 7/8			154	0,97
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	

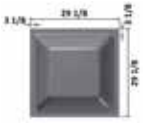


atex 740 (Rectangular)



*Used with ruler guide 3" wide (Detail 2)

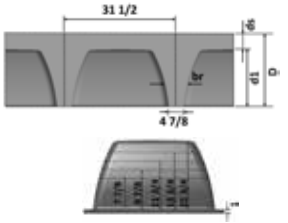
atex 740 (Square)



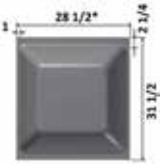
*It can be provided with cut 2x2" for fixed prop (Atex 740R)

ATEX 800

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Com-paring: solid slab height				
in	in	in	in	in	in	in²	in	in	in4	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
7 7/8	2	9 7/8	4 7/8	6 1/8	5 1/2	106	3	6 7/8	827	6 3/4	3,07	0,45	60	0,37
	3	10 7/8				137	3 1/8	7 5/8	1114	7 1/2			73	0,46
	3 7/8	11 3/4				168	3 1/2	8 3/8	1452	8 1/4			86	0,54
9 7/8	2	11 3/4	4 7/8	6 3/4	5 7/8	119	3 3/4	8 1/8	1429	8 1/8	3,74	0,54	70	0,44
	3	12 3/4				150	3 7/8	9	1863	8 7/8			83	0,52
	3 7/8	13 3/4				181	4	9 3/4	2343	9 5/8			96	0,60
11 3/4	2	13 3/4	4 7/8	7 7/8	6 3/8	138	4 4/8	9 1/4	2292	9 5/8	4,31	0,63	83	0,52
	3	14 3/4				169	4 5/8	10 1/4	2929	10 3/8			96	0,60
	3 7/8	15 3/4				200	4 3/4	11	3605	11 1/8			109	0,69
13 3/4	2	15 3/4	4 7/8	8 7/8	6 7/8	157	5 3/8	10 3/8	3431	11	4,84	0,7	97	0,61
	3	16 3/4				188	5 3/8	11 3/8	4316	11 3/4			110	0,69
	3 7/8	17 3/4				219	5 1/2	12 1/4	5232	12 5/8			123	0,77
15 3/4	2	17 3/4	4 7/8	10 1/8	7 1/2	181	6 1/4	11 1/2	4941	12 3/8	5,23	0,76	114	0,72
	3	18 3/4				212	6 1/4	12 1/2	6129	13 1/4			127	0,80
	3 7/8	19 5/8				243	6 3/8	13 3/8	7344	14 1/8			141	0,88
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	

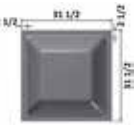


atex 800 (Rectangular)



*Used with ruler guide 3" wide (Detail 2)

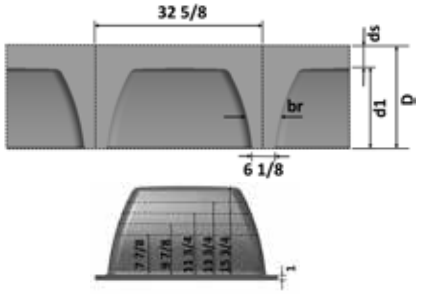
atex 800 (Square)



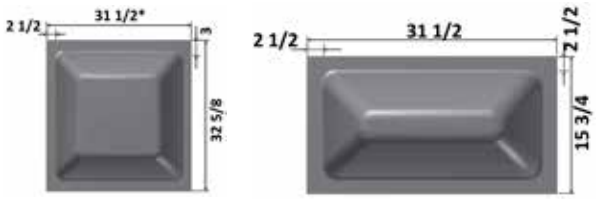
*It can be provided with cut 2x2" for fixed prop (Atex 800R)

ATEX 830

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height				
in	in	in	in	in	in	in²	in	in	in⁴	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
7 7/8	2	9 7/8	6 1/8	7 3/8	6 3/4	117	3 1/8	6 3/4	961	7 1/8	3,07	0,41	65	0,41
	3	10 7/8				149	3 3/8	7 1/2	1299	7 7/8			78	0,49
	3 7/8	11 3/4				182	3 5/8	8 1/8	1692	8 1/2			91	0,57
9 7/8	2	11 3/4	6 1/8	7 7/8	7	133	3 7/8	7 7/8	1652	8 1/2	3,74	0,51	76	0,48
	3	12 3/4				166	4	8 3/4	2160	9 1/4			89	0,56
	3 7/8	13 3/4				198	4 1/4	9 1/2	2719	10			102	0,64
11 3/4	2	13 3/4	6 1/8	9	7 5/8	154	4 3/4	9	2631	9 7/8	4,31	0,58	90	0,57
	3	14 3/4				186	4 7/8	9 7/8	3369	10 3/4			103	0,65
	3 7/8	15 3/4				218	5	10 3/4	4152	11 1/2			117	0,73
13 3/4	2	15 3/4	6 1/8	10	8 1/8	176	5 5/8	10 1/8	3922	11 1/4	4,84	0,65	105	0,66
	3	16 3/4				208	5 5/8	11 1/8	4939	12 1/4			118	0,74
	3 7/8	17 3/4				240	5 7/8	11 7/8	5993	13			131	0,82
15 3/4	2	17 3/4	6 1/8	11 3/8	8 3/4	202	6 1/2	11 1/4	5621	12 3/4	5,23	0,71	123	0,77
	3	18 3/4				234	6 1/2	12 1/4	6971	13 3/4			136	0,85
	3 7/8	19 5/8				266	6 5/8	13	8357	14 1/2			149	0,94
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	



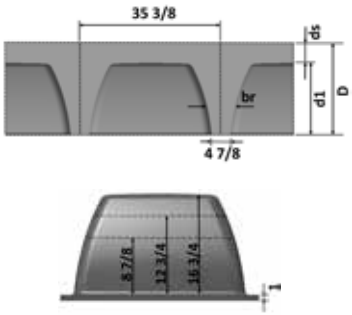
atex 830 (Rectangular)



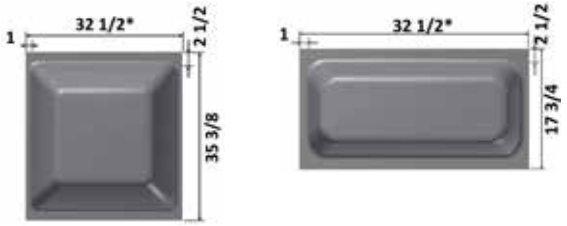
*Used with ruler guide 1 1/8" wide (Detail 1)

ATEX 900

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height				
in	in	in	in	in	in	in²	in	in	in⁴	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
8 7/8	2	10 7/8	4 7/8	8 1/2	6 3/4	129	3 1/4	7 1/2	1209	7 1/2	4,10	0,47	69	0,43
	3	11 3/4				164	3 1/2	8 3/8	1604	8 1/8			82	0,52
	3 7/8	12 3/4				199	3 3/4	9	2058	8 7/8			95	0,60
12 3/4	2	14 3/4	4 7/8	10	7 1/2	166	4 7/8	9 7/8	3060	10 1/8	5,79	0,66	90	0,57
	3	15 3/4				200	4 7/8	10 7/8	3879	11			103	0,65
	3 7/8	16 3/4				235	5 1/8	11 5/8	4742	11 3/4			117	0,73
16 3/4	2	18 3/4	4 7/8	11 5/8	8 1/4	208	6 1/2	12 1/4	6201	12 3/4	7,17	0,82	117	0,73
	3	19 5/8				243	6 1/2	13 1/4	7641	13 3/4			130	0,82
	3 7/8	20 5/8				278	6 1/2	14 1/8	9107	14 5/8			143	0,90
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	



atex 900 (Rectangular)



*Used with ruler guide 3" wide (Detail 2)

Tubex

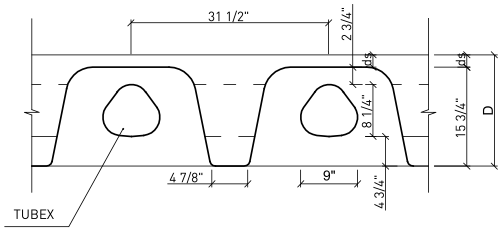
Tubex, the product demanding patent, was developed to run the Atex slab by using horizontal holes.

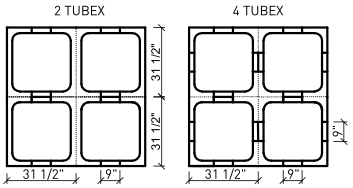
This eliminated the use of concrete with no structural purpose for both the wells and the holes resulting in a 10% economy of concrete usage, when compared to ribbed slab without tubes.

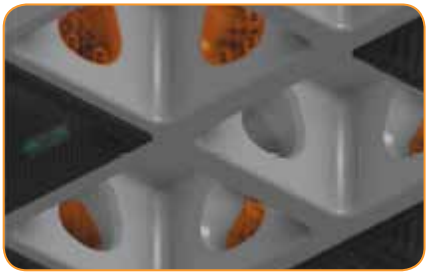
Tubex is an evolution of the PVC pipes that are traditionally cut and placed between the buckets in order to form the hole.

The ribbed slab with the holes permits the installation of ventilation ducts, hydraulic pipes and electric gutters fitted into the thickness of the slab.

Mould Depth	Depth of Topping	Total Depht	Rib Width			Section Area	Distance of G.C.		Inertia	Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base					
in	in	in	in	in	in	in²	in	in	in4	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
15 3/4 (without Tubex)	2	17 3/4	4 7/8	10 1/8	7 1/2	181	6 1/4	11 1/2	4943	5,23	0,76	114	0,72
	3	18 3/4				212	6 1/4	12 1/2	6131			127	0,80
	3 7/8	19 5/8				243	6 3/8	13 1/4	7347			141	0,88
15 3/4 (2 Tubex)	2	17 3/4	4 7/8	10 1/8	7 1/2	113	4 3/4	13	3898	5,51	0,80	108	0,68
	3	18 3/4				144	4 5/8	14	4570			121	0,76
	3 7/8	19 5/8				175	4 5/8	15	5235			134	0,84
15 3/4 (4 Tubex)	2	17 3/4	4 7/8	10 1/8	7 1/2	113	4 3/4	13	3898	5,76	0,84	102	0,64
	3	18 3/4				144	4 5/8	14	4570			115	0,72
	3 7/8	19 5/8				175	4 5/8	15	5235			128	0,80
d1	ds	D	bi	bs	br	A	rs	ri	I	v/v		Concrete 150 lb/ft³	







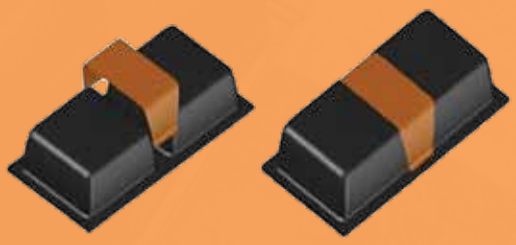
Technical Data

Waffle Mould

One way spanning

Polypropylene trough moulds are ideal for one way spanning floors, providing a good industrial finish.

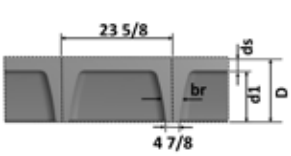
All the moulds are light in weight and easy to handle. Compared with solid slab and beam floors. Savings in steel and concrete can be as great as 40%.

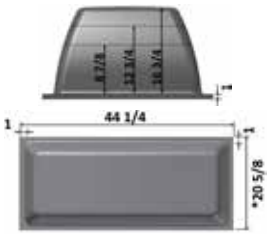


ATEX 600U

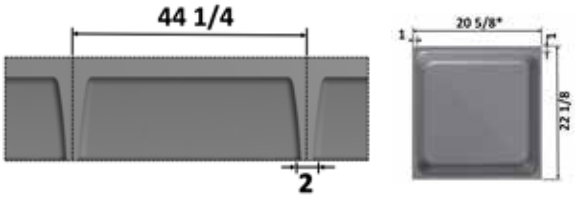
Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Volume of Void		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height				
in	in	in	in	in	in	in²	in	in	in⁴	in	ft³	ft³ / ft²	lb / ft²	ft³ / ft²
8 7/8	2	10 7/8	4 7/8	7 1/8	6	100	3 3/4	7 1/8	1016	8	3,71	0,51	62	0,39
	3	11 3/4				123	3 7/8	7 7/8	1354	8 7/8			75	0,47
	3 7/8	12 3/4				146	4 1/4	8 5/8	1736	9 5/8			88	0,55
12 3/4	2	14 3/4	4 7/8	8 1/8	6 1/2	130	5 3/8	9 3/8	2531	10 7/8	5,19	0,72	82	0,52
	3	15 3/4				153	5 1/2	10 1/2	3214	11 3/4			95	0,60
	3 7/8	16 3/4				176	5 5/8	11 1/8	3935	12 5/8			108	0,68
16 3/4	2	18 3/4	4 7/8	9 1/8	7	164	7 1/8	11 5/8	5081	13 3/4	6,50	0,90	105	0,66
	3	19 5/8				187	7 1/8	12 1/2	6251	14 5/8			119	0,74
	3 7/8	20 5/8				210	7 1/4	13 3/8	7452	15 5/8			132	0,83
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	v/v		Concrete 150 lb/ft³	

atex 600





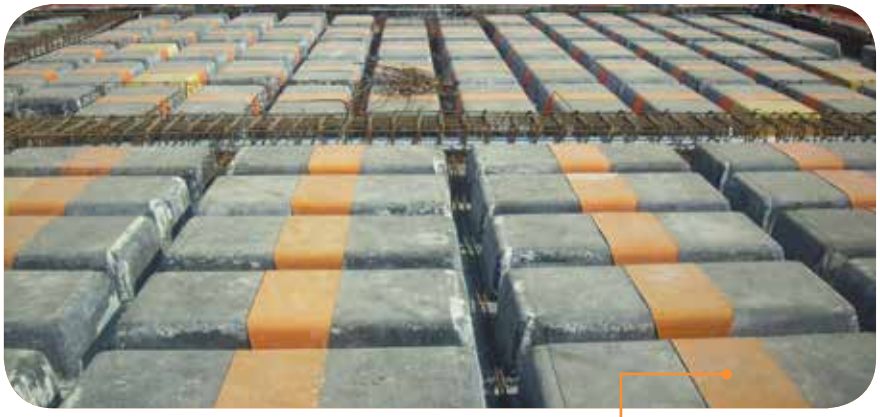
atex 600



*Used with ruler guide 3" wide (Detail 2)

Saddle®

An Atex patented product



The saddles were developed for the construction of one-way spanning systems. Using this part between the moulds for two-way ribbed systems, the rib that would be formed between them is eliminated, and a one-way spanning slab is shaped.

This is an Atex product, patented and can be used by the Atex families 610U, Atex 640U, Atex 655U, Atex 685U, Atex 755U, Atex 800U, Atex 830U and Atex 875U.

Tie beam

Part to be placed between two Atex moulds.

Saddle

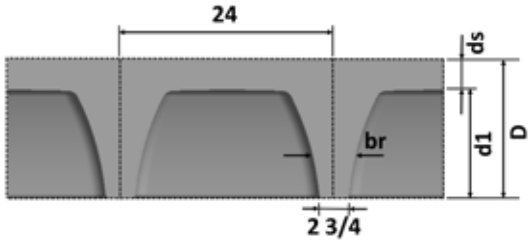
The part that fixes the lower flaps of the saddle guaranteeing the maintenance of its measures and resistance to tensile and shear.

Atex Saddles® has a unique fixation system developed so as to guarantee it fits perfectly in with the moulds.

This will prevent the set from sagging and maintains the saddle in the right position while the concrete is being poured.

ATEX 610U

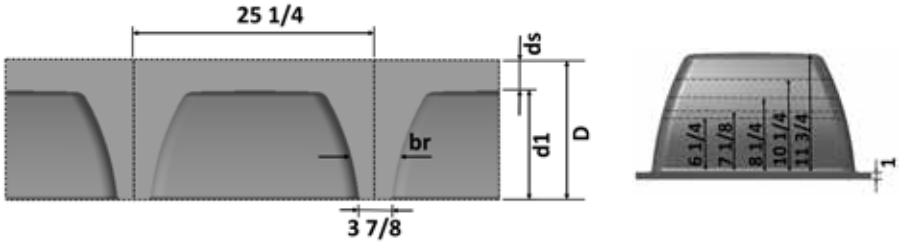
Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height		
in	in	in	in	in	in	in²	in	in	in⁴	in	lb / ft²	ft³ / ft²
6 1/4	2	8 1/4	2 3/4	3 7/8	3 3/8	68	2 1/4	6 1/8	310	5 3/8	38	0,24
	3	9 1/4				92	2 1/2	6 3/4	439	6	51	0,32
	3 7/8	10 1/4				115	2 7/8	7 3/8	608	6 3/4	64	0,40
7 1/8	2	9	2 3/4	3 7/8	3 3/8	71	2 1/2	6 5/8	407	5 7/8	39	0,25
	3	10				95	2 5/8	7 3/8	560	6 1/2	52	0,33
	3 7/8	11				118	3	8	751	7 1/4	65	0,41
8 1/4	2	10 1/4	2 3/4	4 3/4	3 3/4	79	2 7/8	7 3/8	612	6 3/4	43	0,27
	3	11 1/4				102	3 1/8	8 1/8	819	7 1/2	56	0,35
	3 7/8	12 1/4				126	3 3/8	8 7/8	1065	8 1/8	70	0,44
10 1/4	2	12 1/4	2 3/4	5 7/8	4 1/4	91	3 5/8	8 5/8	1068	8 1/8	50	0,31
	3	13 1/4				115	3 3/4	9 3/8	1389	8 7/8	63	0,40
	3 7/8	14 1/8				138	4	10 1/8	1745	9 5/8	76	0,48
11 3/4	2	13 3/4	2 3/4	6 3/4	4 3/4	104	4 1/4	9 1/2	1572	9 1/4	57	0,36
	3	14 3/4				127	4 3/8	10 3/8	2011	10	71	0,44
	3 7/8	15 3/4				151	4 5/8	11 1/8	2485	10 3/4	84	0,52
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	Concrete 150 lb/ft³	



*Saddle required between Atex 610 moulds.

ATEX 640U

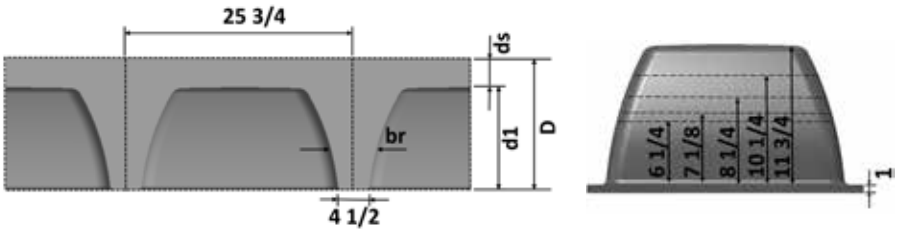
Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height		
in	in	in	in	in	in	in²	in	in	in⁴	in	lb / ft²	ft³ / ft²
6 1/4	2	8 1/4	3 7/8	5 1/8	4 1/2	78	2 1/2	5 7/8	398	5 3/4	41	0,26
	3	9 1/4				103	2 3/4	6 1/2	562	6 1/2	54	0,34
	3 7/8	10 1/4				128	3 1/8	7 1/8	769	7 1/8	67	0,42
7 1/8	2	9	3 7/8	5 1/8	4 1/2	82	2 3/4	6 3/8	521	6 1/4	43	0,27
	3	10				106	3	7 1/8	716	7	56	0,35
	3 7/8	11				131	3 1/4	7 3/4	955	7 5/8	69	0,43
8 1/4	2	10 1/4	3 7/8	6	5	91	3 1/4	7	770	7 1/8	48	0,30
	3	11 1/4				115	3 3/8	7 7/8	1033	7 7/8	61	0,38
	3 7/8	12 1/4				140	3 5/8	8 1/2	1340	8 5/8	74	0,46
10 1/4	2	12 1/4	3 7/8	7	5 1/2	106	4	8 1/4	1322	8 5/8	55	0,35
	3	13 1/4				130	4 1/8	9 1/8	1723	9 3/8	69	0,43
	3 7/8	14 1/8				155	4 3/8	9 3/4	2165	10 1/8	81	0,51
11 3/4	2	13 3/4	3 7/8	8	6	120	4 5/8	9 1/8	1925	9 3/4	63	0,40
	3	14 3/4				145	4 3/4	10	2466	10 1/2	76	0,48
	3 7/8	15 3/4				169	5	10 3/4	3047	11 3/8	89	0,56
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	Concrete 150 lb/ft³	



*Saddle required between Atex 610 moulds. Used with a ruler guide 1 1/8" wide.

ATEX 655U

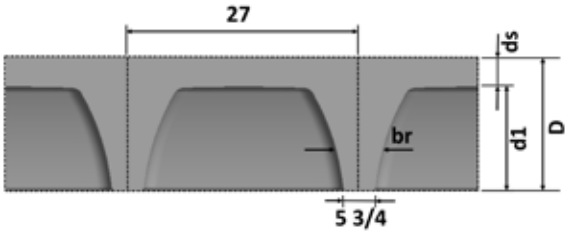
Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height		
in	in	in	in	in	in	in²	in	in	in⁴	in	lb / ft²	ft³ / ft²
6 1/4	2	8 1/4	4 1/2	5 5/8	5 1/8	83	2 1/2	5 3/4	439	5 7/8	43	0,27
	3	9 1/4				108	2 3/4	6 1/2	619	6 5/8	56	0,35
	3 7/8	10 1/4				134	3 1/4	7	846	7 3/8	69	0,43
7 1/8	2	9	4 1/2	5 5/8	5 1/8	87	2 3/4	6 1/4	574	6 4/8	45	0,28
	3	10				112	3	7	790	7 1/8	58	0,36
	3 7/8	11				138	3 3/8	7 5/8	1051	7 7/8	71	0,45
8 1/4	2	10 1/4	4 1/2	6 5/8	5 1/2	97	3 1/4	6 7/8	844	7 3/8	50	0,31
	3	11 1/4				122	3 1/2	7 3/4	1134	8 1/8	63	0,39
	3 7/8	12 1/4				147	3 3/4	8 3/8	1468	8 7/8	76	0,48
10 1/4	2	12 1/4	4 1/2	7 5/8	6 1/8	113	4 1/8	8 1/8	1443	8 3/4	58	0,36
	3	13 1/4				138	4 1/4	8 7/8	1882	9 5/8	71	0,45
	3 7/8	14 1/8				164	4 1/2	9 5/8	2364	10 3/8	84	0,53
11 3/4	2	13 3/4	4 1/2	8 1/2	6 1/2	128	4 3/4	9	2092	9 7/8	66	0,41
	3	14 3/4				153	4 7/8	9 7/8	2681	10 3/4	79	0,50
	3 7/8	15 3/4				179	5 1/8	10 5/8	3313	11 5/8	92	0,58
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	Concrete 150 lb/ft³	

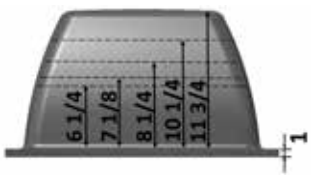


*Saddle required between Atex 610 moulds. Used with a ruler guide 3" wide.

ATEX 685U

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height		
in	in	in	in	in	in	in²	in	in	in4	in	lb / ft²	ft³ / ft²
6 1/4	2	8 1/4	5 3/4	6 7/8	6 1/4	93	2 3/4	5 1/2	517	6 1/8	46	0,29
	3	9 1/4				119	3	6 1/4	730	6 7/8	58	0,37
	3 7/8	10 1/4				146	3 3/8	6 7/8	994	7 5/8	72	0,45
7 1/8	2	9	5 3/4	6 7/8	6 1/4	98	3	6 1/8	675	6 3/4	48	0,30
	3	10				124	3 1/4	6 3/4	932	7 1/2	61	0,38
	3 7/8	11				151	3 5/8	7 1/2	1238	8 1/4	74	0,47
8 1/4	2	10 1/4	5 3/4	7 3/4	6 3/4	109	3 1/2	6 3/4	986	7 5/8	53	0,33
	3	11 1/4				135	3 3/4	7 1/2	1327	8 3/8	66	0,42
	3 7/8	12 1/4				162	4	8 1/4	1718	9 1/8	79	0,50
10 1/4	2	12 1/4	5 3/4	8 3/4	7 1/4	127	4 3/8	7 7/8	1673	9	63	0,39
	3	13 1/4				154	4 1/2	8 3/4	2185	9 7/8	76	0,48
	3 7/8	14 1/8				180	4 3/4	9 1/2	2746	10 3/4	89	0,56
11 3/4	2	13 3/4	5 3/4	9 3/4	7 3/4	144	5	8 3/4	2415	10 1/4	71	0,45
	3	14 3/4				171	5 1/8	9 5/8	3096	11 1/8	84	0,53
	3 7/8	15 3/4				197	5 3/8	10 3/8	3827	11 7/8	97	0,61
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	Concrete 150 lb/ft³	

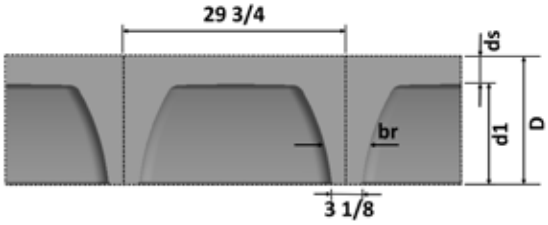


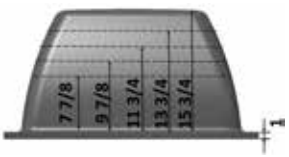


*Saddle required between Atex 610 moulds. Used with a ruler guide 3" wide.

ATEX 755U

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height		
in	in	in	in	in	in	in²	in	in	in⁴	in	lb / ft²	ft³ / ft²
7 7/8	2	9 7/8	3 1/8	4 3/8	3 3/4	88	2 1/2	7 1/4	606	6 1/4	39	0,25
	3	10 7/8				117	2 3/4	8	813	6 7/8	52	0,33
	3 7/8	11 3/4				147	3 1/8	8 3/4	1067	7 1/2	65	0,41
9 7/8	2	11 3/4	3 1/8	5	4	98	3 1/4	8 5/8	1063	7 1/2	44	0,28
	3	12 3/4				128	3 3/8	9 1/2	1377	8 1/4	57	0,36
	3 7/8	13 3/4				157	3 5/8	10 1/8	1733	8 7/8	70	0,44
11 3/4	2	13 3/4	3 1/8	6 1/8	4 5/8	113	4	9 3/4	1738	8 7/8	51	0,32
	3	14 3/4				142	4	10 3/4	2210	9 5/8	64	0,40
	3 7/8	15 3/4				172	4 1/4	11 1/2	2717	10 3/8	77	0,48
13 3/4	2	15 3/4	3 1/8	7 1/8	5 1/8	129	4 3/4	11	2641	10 1/4	57	0,36
	3	16 3/4				158	4 3/4	11 7/8	3312	11	71	0,44
	3 7/8	17 3/4				188	5	12 3/4	4008	11 3/4	84	0,52
15 3/4	2	17 3/4	3 1/8	8 3/8	5 3/4	149	5 5/8	12 1/8	3854	11 5/8	67	0,42
	3	18 3/4				179	5 5/8	13 1/8	4777	12 1/2	80	0,50
	3 7/8	19 5/8				208	5 3/4	13 7/8	5719	13 1/4	93	0,58
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	Concrete 150 lb/ft³	

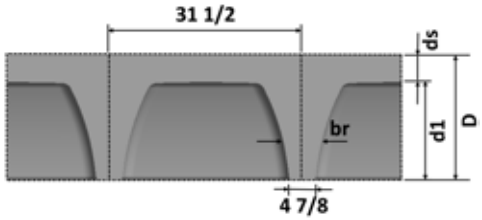




*Saddle required between Atex 610 moulds. Used with a ruler guide 1 1/8" wide.

ATEX 800U

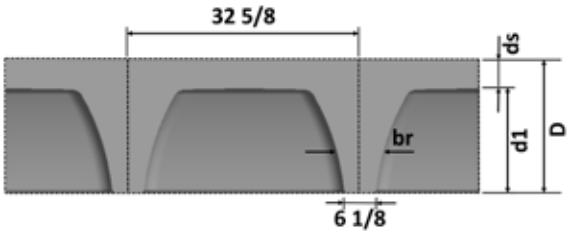
Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height		
in	in	in	in	in	in	in²	in	in	in⁴	in	lb / ft²	ft³ / ft²
7 7/8	2	9 7/8	4 7/8	6 1/8	5 1/2	106	3	6 7/8	827	6 3/4	44	0,28
	3	10 7/8				137	3 1/8	7 5/8	1114	7 1/2	57	0,36
	3 7/8	11 3/4				168	3 4/8	8 3/8	1452	8 1/4	71	0,44
9 7/8	2	11 3/4	4 7/8	6 3/4	5 7/8	119	3 3/4	8 1/8	1429	8 1/8	50	0,31
	3	12 3/4				150	3 7/8	9	1863	8 7/8	63	0,40
	3 7/8	13 3/4				181	4	9 3/4	2343	9 5/8	76	0,48
11 3/4	2	13 3/4	4 7/8	7 7/8	6 3/8	138	4 1/2	9 1/4	2292	9 5/8	58	0,36
	3	14 3/4				169	4 5/8	10 1/4	2929	10 3/8	71	0,45
	3 7/8	15 3/4				200	4 3/4	11	3605	11 1/8	84	0,53
13 3/4	2	15 3/4	4 7/8	8 7/8	6 7/8	157	5 3/8	10 3/8	3431	11	66	0,42
	3	16 3/4				188	5 3/8	11 3/8	4316	11 3/4	79	0,50
	3 7/8	17 3/4				219	5 1/2	12 1/4	5232	12 5/8	93	0,58
15 3/4	2	17 3/4	4 7/8	10 1/8	7 1/2	181	6 1/4	11 1/2	4941	12 3/8	76	0,48
	3	18 3/4				212	6 1/4	12 1/2	6129	13 1/4	89	0,56
	3 7/8	19 5/8				243	6 3/8	13 3/8	7344	14 1/8	102	0,64
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	Concrete 150 lb/ft³	

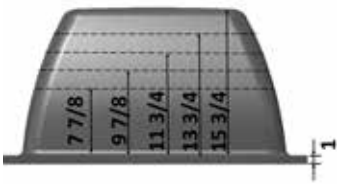


*Saddle required between Atex 800 moulds.

ATEX 830U

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height		
in	in	in	in	in	in	in²	in	in	in⁴	in	lb / ft²	ft³ / ft²
7 7/8	2	9 7/8	6 1/8	7 3/8	6 3/4	117	3 1/8	6 3/4	961	7 1/8	48	0,30
	3	10 7/8				149	3 3/8	7 1/2	1299	7 7/8	61	0,38
	3 7/8	11 3/4				182	3 5/8	8 1/8	1692	8 1/2	74	0,46
9 7/8	2	11 3/4	6 1/8	7 7/8	7	133	3 7/8	7 7/8	1652	8 1/2	54	0,34
	3	12 3/4				166	4	8 3/4	2160	9 1/2	67	0,42
	3 7/8	13 3/4				198	4 1/4	9 1/2	2719	10	80	0,51
11 3/4	2	13 3/4	6 1/8	9	7 5/8	154	4 3/4	9	2631	9 7/8	63	0,39
	3	14 3/4				186	4 7/8	9 7/8	3369	10 3/4	76	0,48
	3 7/8	15 3/4				218	5	10 3/4	4152	11 1/2	89	0,56
13 3/4	2	15 3/4	6 1/8	10	8 1/8	176	5 5/8	10 1/8	3922	11 1/4	71	0,45
	3	16 3/4				208	5 5/8	11 1/8	4939	12 1/4	84	0,53
	3 7/8	17 3/4				240	5 7/8	11 7/8	5993	13	97	0,61
15 3/4	2	17 3/4	6 1/8	11 3/8	8 3/4	202	6 1/2	11 1/4	5621	12 3/4	82	0,52
	3	18 3/4				234	6 1/2	12 1/4	6971	13 3/4	95	0,60
	3 7/8	19 5/8				266	6 1/2	13	8357	14 1/2	108	0,68
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	Concrete 150 lb/ft³	

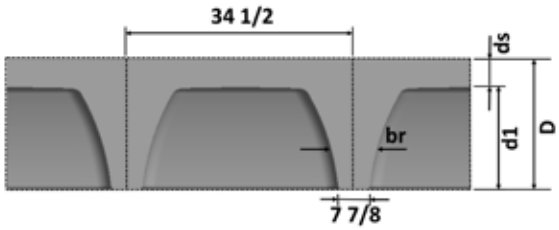


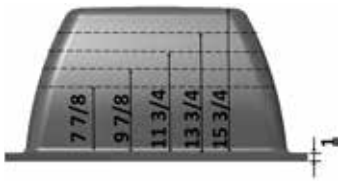


*Saddle required between Atex 800 moulds. Used with a ruler guide 1 1/8" wide.

ATEX 875U

Mould Depth	Depth of Topping	Total Depth	Rib Width			Section Area	Distance of G.C.		Inertia		Self Weight	Volume of Concrete
			Base	Top	Average		From Top	From Base	waffle slab inertia	Comparing: solid slab height		
in	in	in	in	in	in	in²	in	in	in⁴	in	lb / ft²	ft³ / ft²
7 7/8	2	9 7/8	7 7/8	9 1/8	8 1/2	135	3 3/8	6 1/2	1149	7 3/8	52	0,32
	3	10 7/8				168	3 5/8	7 1/4	1558	8 1/8	65	0,41
	3 7/8	11 3/4				202	3 7/8	7 7/8	2029	8 7/8	78	0,49
9 7/8	2	11 3/4	7 7/8	9 5/8	8 3/4	154	4 1/4	7 5/8	1965	8 7/8	60	0,37
	3	12 3/4				188	4 3/8	8 1/2	2579	9 5/8	73	0,46
	3 7/8	13 3/4				222	4 5/8	9 1/4	3251	10 3/8	86	0,54
11 3/4	2	13 3/4	7 7/8	10 7/8	9 3/8	178	5 1/8	8 3/4	3110	10 1/4	69	0,43
	3	14 3/4				212	5 1/8	9 5/8	3990	11 1/8	82	0,52
	3 7/8	15 3/4				246	5 3/8	10 3/8	4925	12	95	0,60
13 3/4	2	15 3/4	7 7/8	11 3/4	9 7/8	204	6	9 3/4	4619	11 3/4	78	0,49
	3	16 3/4				237	6	10 3/4	5818	12 5/8	91	0,57
	3 7/8	17 3/4				271	6 1/8	11 1/2	7067	13 1/2	104	0,66
15 3/4	2	17 3/4	7 7/8	13 1/8	10 1/2	233	6 3/4	10 7/8	6596	13 1/4	90	0,56
	3	18 3/4				267	6 7/8	11 7/8	8171	14 1/8	103	0,65
	3 7/8	19 5/8				301	7	12 5/8	9798	15 1/8	116	0,73
d1	ds	D	bi	bs	br	A	rs	ri	I	Heq	Concrete 150 lb/ft³	





*Saddle required between Atex 800 moulds. Used with a ruler guide 3 ¨ wide.


Mexico

Dominican Republic

Angola


Paraguay




Canada



Czech Republic

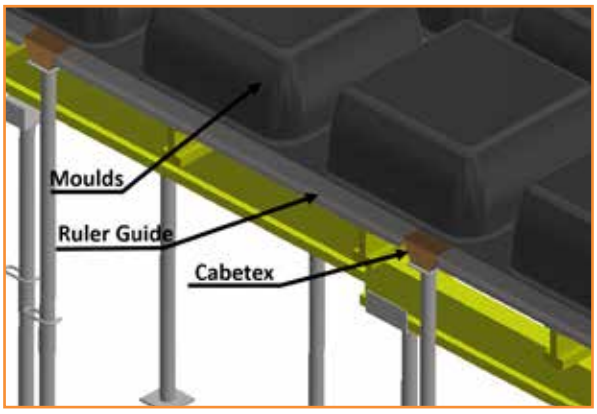

Argentina


United Kingdom


Brazil

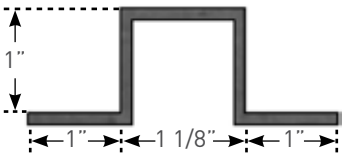
Cabetex®
Atex Ruler System

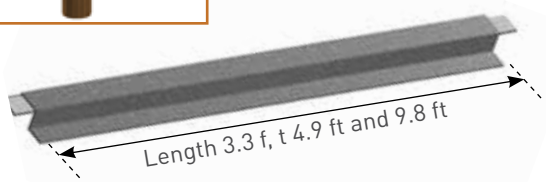
The company designed an innovative system - Cabetex System, used in any type of Atex slab and any type of shoring. The heads of shoring (Cabetex) are placed in previously defined places where the fixed shoring will be installed. 72 hours after the concrete is fixed, the provisional shoring can be removed, but the fixed shoring, so that the slab does not suffer the stress.



Detail 1: Ruler Guide 1 1/8”

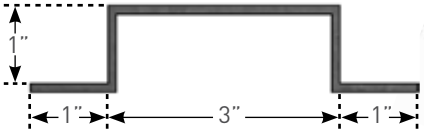
Galvanized steel ruler to be used with Moulds Atex 600, Atex 610, Atex 650, Atex 610U, Atex 640U and Atex 830U.

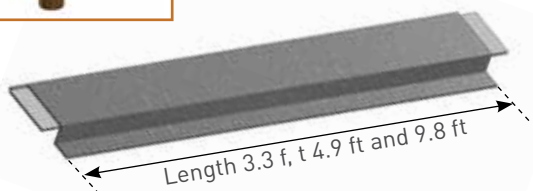




Detail 2: Ruler Guide 3”

Galvanized steel ruler to be used with Moulds Atex 700, Atex 740, Atex 800, Atex 900, Atex 600U, Atex 655U, Atex 685U, Atex 755U, Atex 800U and Atex 875U.





SOLID SLAB X ATEX® RIBBED SLAB

STUDY CASE: ATEX MOULD 900/16 3/4"+ 2" = 18 3/4"

Reference: NBR 6118/14

fck = 25 MPa

y = 13,5 m = 44,3 ft | 1962,5 ft² | x = 13,5 m = 44,3 ft

Inertia/ rib = 6201 in⁴

inertia equivalent/ solid slab → $h_{eq} = \sqrt[3]{\frac{6201\ in^4 \times 12}{35,43\ in}} = 12,8\ in$

Calculations: SOLID SLAB h = 12,6 in

q = 0,32 x 2500 kg/m² (self-weight) + 200 kg/m² (live load) + 100 kg/m² (floor covering) + 25 kg/m² (dry wall) = 1125 Kg / m²

q = 167 lb/ft² (self-weight) + 42 lb/ft² (live load) + 21 lb/ft² (floor covering) + 5 lb/ft² (dry wall) = 235 lb/ft²

$f = \frac{925 + 0,75 \times 200}{992 \times 32^3} \times 13,5^4 \times 4,1 = 4,5\ cm = 1,8\ in$

Mx = My = 1125 x 13,5² : 100 x 3,68 = 7545 Kgm /m

Steel sq = 1,3 in2 Ø 3,8" disposal in each 3 3/4"

2 x 141 x 0,43 lb/ft x 44,3 ft = 5370 lb : 44,3 ft² = 2,7 lb/ft²

ATEX SLAB 900/16 3/4"+ 2" = 18 3/4"→ CONCRETE = 0,73 ft³/ft²

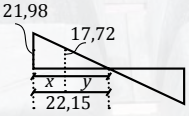
q = 0,225 x 2500 kg/m² (self-weight) + 200 kg/m² (live load) + 100 kg/m² (floor covering) + 25 kg/m² (dry wall) = 900 kg/m²
q = 117 lb/ft² (self-weight) + 42 lb/ft² (live load) + 21 lb/ft² (floor covering) + 5 lb/ft² (dry wall) = 185 lb/ft²

Mx = My = 900 x 13,5² : 100 x 3,68 (factor) = 6036 Kgm/m x 0,9 m (axis distance) = 5433 Kgm/rib

Steel sq = 0,6 in² 2 Ø 5,8" 2 x 14 ribs x 44,3 ft m x 2 x 1,10 lb/ft = 2729 lb

Qx = Qy = 900 x 13,5 : 4 = 3038 kg/m x 0,9m (axis distance) = 2734 Kg/rib $\tau sd = \frac{2734 \times 1,4}{12,5 \times 45,5} = 6,7\ kg/cm^2$

$\tau Rd1 = 0,0375 \times 25^{2/3} (1,6 - 0,455) (1,2 + 40 \times \frac{4,0}{12,5 \times 45,5}) = 0,54\ MPa < 0,67\ MPa$ (reinforced rebar is required in X lenght)



$y = \frac{22,15 \times 17,72}{21,98} = 17,86$ X = 22,15 - 17,86 = 4,29 ft = 51,5in

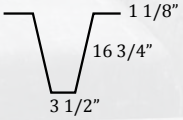
$fywd = 250 + (\frac{435 - 250}{20})(h - 15) \leq 435\ MPa$ h = 47,5 cm fywd = 435 MPa

Ø 3/16" disposal in each 7 7/8" 51,2 : 7,9 = 6 stirrups

6 (stirrups) x 0,11 lb/ft (steel self-weight) x 3,28 ft (steel stirrups lenght) x 2 (each border) x 14 (ribs) x 2 = 121,2 lb

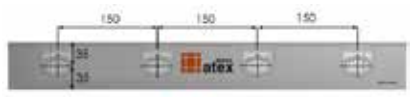
2729 lb + 121,2 lb = 2850,2 lb = 2850,2 lb : 44,3² = 1,5 lb/ft²

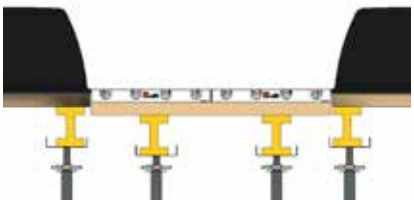
Ø 1/8" disposal in each 5 7/8" = $\frac{0,2\ lb/ft^2}{1,7\ lb/ft^2}$

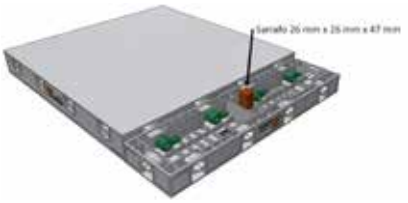


Conclusion	Concrete	Steel
Solid Slab h = 12,6 in	1,05 ft³/ ft²	2,7 lb/ft²
Atex Slab h = 18,7 in	0,73 ft³/ ft²	1,7 lb/ft²
DIFFERENCE	***- 30 %***	***- 40 %***

Planex® for Slabs







The Planex system for flat slabs is an innovation that Atex offers for the construction companies to optimize the executive process of solid slabs, in order to guarantee a cleaner, organized and ecologically sustainable work.

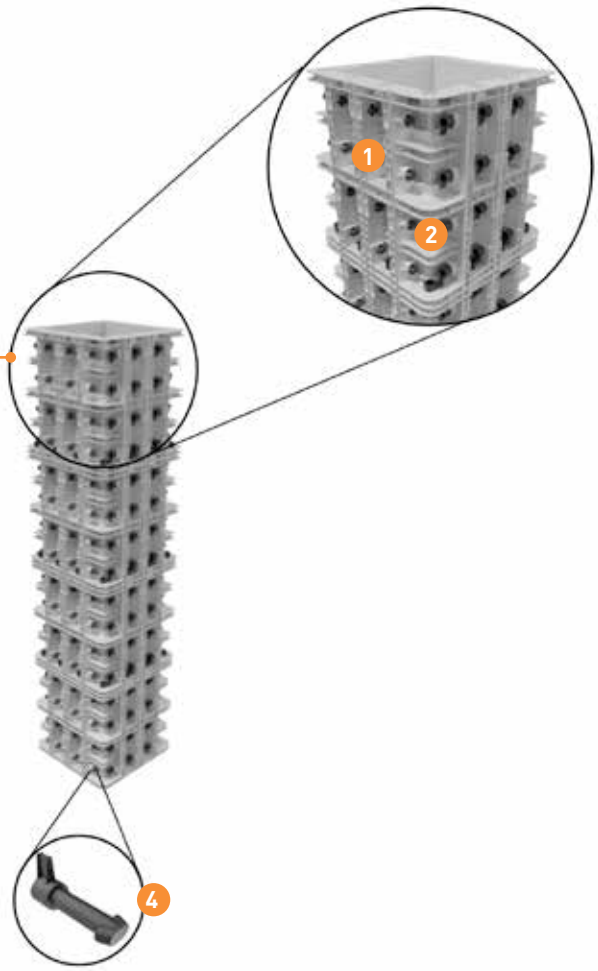
12 advantages provided by using the Planex system

1. More **productivity** during the moulds assembly.
2. More **ergonomy** at handling the mold.
3. Available for renting and selling.
4. **Durability** of the moulds and greater re-use.
5. Aproximately **85% reduce of all wood used**.
6. Applicable in **every type of shoring**.
7. **No need for specialized** labor.
8. **Lower use** of carpenter's work.
9. **Do not deform** in contact with rainwater.
10. **No disposed** material.
11. **Reduces the use of energy and CO2** emission.
12. Less amount of **shoring pieces**.

The concept is to susbstitue the usage of plywood in the applycation of concrete at solid slabs for moulds made of plastic.

The structural project is developed in a way to eliminate to the fullest the usage of wood moulds in each gap. The Planex is directly supported over secundary beam in the same way as the plywood.

Planex® for Columns



Planex® for Beams

1 **Planex versions: 600x600, 600x150 and 600x50**

Planex 600x50 mm

Planex 600x150 mm

Planex 600x600 mm

2 **Planex Outside Corner**

3 **Planex Inside Corner**

4 **Handle**

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