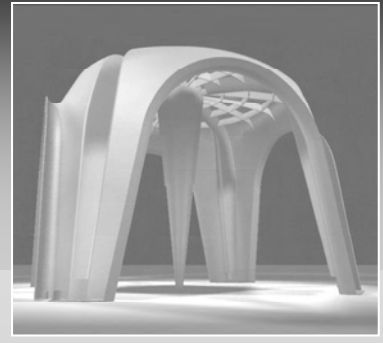
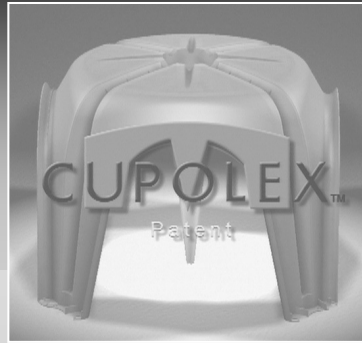
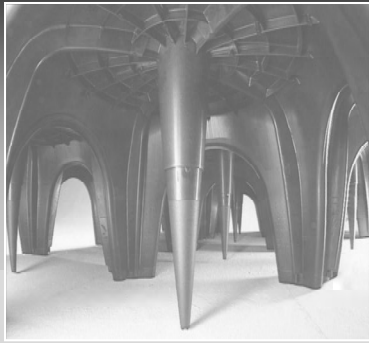


# CUPOLEX®

BUILDING SYSTEMS



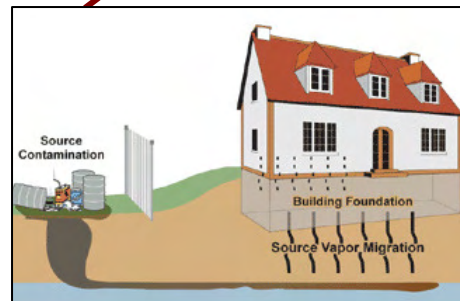
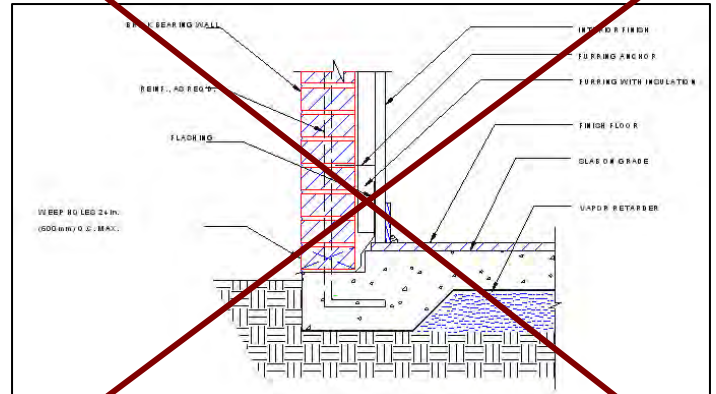
## SLAB ON GROUND

# THE CUPOLEX® SOLUTION



# Identifying The Problem

➤ **Slab-on-ground is a well-used building solution in North America and other parts of the world, and they are very well known to not provide healthy interior environments. The slab on ground is in direct contact with the typical draining layer such as a gravel, sand or a compacted subbase and under complicated hydrothermal conditions. When not properly applied, moisture damage in slab-on-ground structures may result, leading to mould growth, chemical reactions and material emissions associated with an unhealthy indoor environment. Slabs on the ground typically are prone to a degree of damage caused by moisture. Typical moisture failures of slab-on-ground structures are due to the lack of a capillary breaking drainage layer under the slab, lack of thermal insulation, and incorrect placement of the vapour barrier. In addition to the moisture problems, the soil may be a source of radon, methane and many volatile organic compounds (VOC) that may enter indoors through the slab on ground.**



Because the construction of concrete floors on the ground necessarily focuses a great deal of attention on the performance of concrete, especially when the results of such construction are less than satisfactory, the concrete industry has the strongest incentives for doing everything possible to encourage the highest standards of workmanship. This is particularly true since the shortcomings of most slab-on-ground construction have far more to do with faults or oversights of workmanship than to inherent shortcomings in concrete itself.

Building designers and developers strive to assure better results and protect themselves and their product from criticism. They are constantly facing the following challenges when designing and installing slabs on ground:

- slab curling and shrinkage,
- radon,
- vapor intrusion,
- improving indoor air quality,
- reducing the environmental impact of building,
- lowering building costs and the carbon footprint,
- reduce the cycle time of building,
- reduce aggregate use,
- moisture and mold prevention,
- expansive and challenging soil conditions.

**Water Vapor** can readily pass through most building materials, and it is recognized today as being one of the most destructive of the forces that attack the modern home or building. It is a more severe problem today than ever before because of the many ways in which modern construction successfully lowers heat transfer through walls, doors, windows and roofs. Since we have thus made it harder for water vapor to escape from our modern homes and buildings, it has become correspondingly important that we take steps to prevent it from entering.

# CUPOLEX®

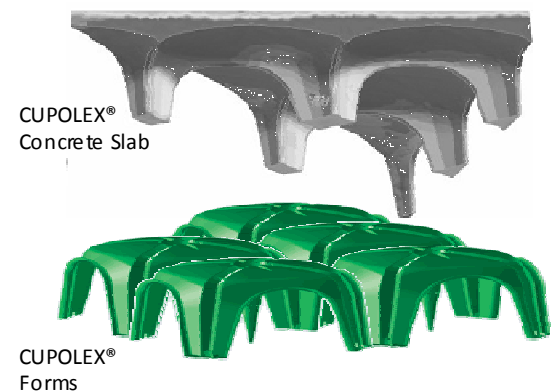
## The Solution to the Problem

► CUPOLEX® is a patented concrete forming system for floors made from **100% recycled** plastic. Concrete is poured over the modular dome forms to create floating or structural slabs with an under slab void that results in minimal concrete contact with the soil, provides a capillary barrier against moisture - yet uses less concrete and rebar than a standard slab with equivalent load bearing capacity. This cutting edge slab on ground solution provides major advantages over a standard slab on grade:

1. Provides an excellent moisture barrier under slab void that can be vented in soil with high water content;
2. Water cannot leach up through the bottom of the concrete slab significantly protecting the structure from water damage;
3. Moisture cannot wick through the concrete by Maintaining the top and bottom of the concrete floor slab dry which cannot contributes to the growth of mold and mildew under flooring overlays and damage to expensive architectural flooring finishes, floor tiles or carpets;
4. Ventilating the CUPOLEX® under slab void space will effectively help control Vapor Intrusion, humidity levels, and temperature ranges, which standard slabs cannot control and have been linked to human health, learning, and productivity;
5. Replaces fill or gravel that typically is required to bring the slab to level and eliminates the costs associated with importing, compacting, certifying engineered fill and reduces any risk with post construction settlement of the underlying subbase;
6. Longer spans can be achieved in pile/beam structural slabs than flat standard slabs;
7. Assists designers to deliver Sustainable features which contribute to GREEN or LEED certified building;
8. Maximum control of concrete curing resulting in reduction of slab curling, shrinkage cracks thus providing a higher quality surface;
9. Provides under-slab space for running cables, conduits and pipes, simplifying post-construction installation of new wiring and utilities;
10. Can provide special CUPOLEX® slab designs on soils with very low bearing capacity, high compressibility, or highly expansive soils.



- CUPOLEX®, a patented concrete forming system for floors made from 100% recycled plastic
- Concrete is poured over the modular dome forms to create floating or structural slabs with an under slab void that can be ventilated to remove Vapors
- And provides a capillary barrier against moisture – yet
- Uses less concrete and rebar than a standard slab
- With equivalent load bearing capacity.

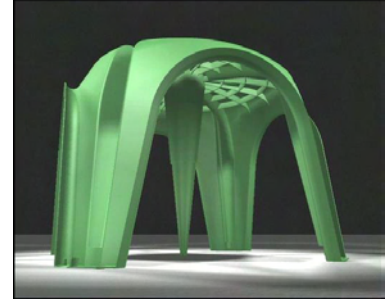


# Design And Technical Support

## ➤ **Cupolex is Formwork, it is not an Engineered System!**

CUPOLEX® is not an engineered system such as truss system, engineered lumber, metal buildings, precast concrete, etc. CUPOLEX® is simply formwork modules which are not used twice. The modules are variously interlinked to create a formwork to complete a concrete casting and the characteristic attribute of this product is its' modular dome made of plastic materials. The slab design refers to the concrete over layer and to the level of reinforcement needed, as established according to the soil characteristics and loading types and levels.

Each CUPOLEX® floor is specifically designed to suit site conditions. Specific design calculations and sealed drawings should be provided for each design by a Chartered Professional Engineer.



## ➤ **Can any Structural Engineer Design a Cupolex Slabs? YES**

Any structural engineer can design a CUPOLEX® slab. Cupolex Building Systems provides all the necessary design support and design tools to structural engineers to make every Cupolex slab a success.

## ➤ **Can Cupolex Building Systems provide Engineering Services and Engineered Drawings? YES**

Cupolex Building Systems also provides full engineering services. We understand slabs, foundations and mitigation. For an engineered product supply quote, please contact us at 1.866.766.8276





## ► CUPOLEX® Support Services

Cupolex Building Systems has available some of the most experienced structural and environmental engineers in the USA and Canada. Leaders in the industry that can provide:

- › Site specific design, including construction drawings and technical specifications for both structural and Vapor Ventilation design
- › Provide Engineering oversight, observation, quality control testing, or performance testing of the installed Cupolex system
- › Provide Vapor intrusion site investigations, including sub-surface investigations, indoor air testing and evaluations of the potential for Vapor Intrusion
- › Site visits for any reason can also be available, including meetings with customers, regulators, contractors, or other parties
- › Certified Installers

We have full time field and technical staff with extensive experience, ready to help when you need it. We know how to Design Slabs, foundations and Mitigation Systems. We have over 15 years experience helping engineers design Aerated Slabs and assist contractors in building with Cupolex all across North America and the rest of the world.

The Cupolex Building Systems in-house Technical Department team can provide design assistance to assess the available information and provide site-specific design recommendations, supported with calculations for each slab.

### These services include:

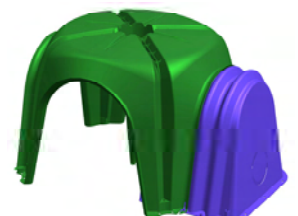
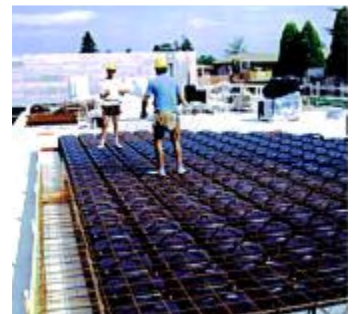
1. Appropriate height and types of CUPOLEX® floor to you're your project's design requirements
2. Reinforcing requirements
3. Standard details
4. Quotation where appropriate.

From Cupolex slabs built at American Air force Bases to Cupolex slabs built at the Guggenheim Museum, from residential home slabs in the Nevada Dessert to slabs built in winter conditions in Canada. We've helped design and build Cupolex Slabs! *In fact over 500 million sq.ft of them.*

**►►►► CUPOLEX®  
Technical Library**

**Design Guide and Specifications  
Engineering Guide for Design  
Specification Documents  
CAD Details  
Testing Reports  
Technical Reports  
Case Histories  
Installation Guide**

**CUPOLEX-PONTEX® FEM Program Software  
EASY CUPOLEX® FEM Program Software  
CUPOLEX® CAD Filler Program**



# CUPOLEX®

## The “ECO FLOOR” Assurance

### ► Backed by Research

Detailed studies have been conducted for by National Research Councils and renowned Universities in Europe, Australia and North America, comparing the static behavior of CUPOLEX® Floors and conventional uniform thickened floors on ground. The research was aimed at the definition of numerical models as well as their experimental validation with tests in situ. The project data refers to the concrete over layer and to the level of reinforcement needed, as established according to the soil characteristics and loading types and levels.



### ► “ECO FLOOR” Assurance

The CUPOLEX® “ECO FLOOR” Assurance provides healthier environments and offers many advantages over conventional floor slabs, including ease of construction, economical savings and reduces building cycle times.

#### **Confidence**

You can design CUPOLEX® floors with confidence knowing that our FORMING systems is used in over 500 million residential, commercial, industrial and institutional applications world-wide with no structural failures or callbacks

#### **Flexibility**

Any type floor design or site condition can be accommodated easily

#### **Performance**

Forms are molded in a variety of depths to deal with different levels of Vapor Emission

#### **Reliability**

CUPOLEX® forms are not only versatile, they are rated the strongest in the industry

#### **Guarantee**

The manufacturer ensures that its' products are manufactured according to the quality standards of the ISO 9001:2000 certified manufacturing facilities

#### **Advanced Design Tools**

CUPOLEX® provides all necessary drawings and design software required to implement CUPOLEX® Aerated Floors

#### **Time Tested Technology**

CUPOLEX® is not a new or experimental concept – over **500 million square feet** have been installed in buildings around the globe for over 15 years, without any failures or structural call backs





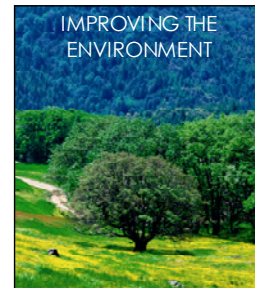
### Low Cost Solution

The savings in labor and materials over conventional slabs usually can pay for the cost of CUPOLEX®, providing a highly efficient preemptive venting system at no additional cost. Compare this to the significant additional cost of installing the gravel venting layers and liners typically required to control vapors below conventional floor slabs.

### ► Sustainable Benefits

CUPOLEX® is the most sustainable solution for radon, vapor intrusion, and moisture control available, helping US federal facilities meet the requirements of Executive Order 13423 and assisting Architects and Design Engineers to deliver Sustainable features that include:

- Increased potential for wind and solar powered venting,
- made out of 100% non-toxic recyclable material,
- contributes to GREEN or LEED certified building,
- reduces dampness, mold and mildew creating a healthier building environment,
- reduces material (concrete and rebar) consumption,
- replaces aggregate and engineered fill under slabs,
- reduces construction time and labor, and
- Selected as the “Green” flooring system for the “American Home” at the 2010 International Builders Show in Las Vegas.



### ► Structural Benefits and Other Advantages

In Addition to providing more effective vapor and moisture control at lower costs, and the sustainable attributes, CUPOLEX®:

- reduces slab curling and shrinkage cracks, providing a higher quality surface,
- provides under-slab space for running cables, conduits and pipes, simplifying post-construction installation of new wiring and utilities,
- supports slabs on challenging and poor soil conditions, especially expansive soils,
- allows forming of complete structural suspended slabs on beam pile foundations,
- can be designed to create under-slab water reservoirs for storm water management and fire suppression water storage,
- approved for installation at USAF bases,
- manufactured to ISO 9001:2000 high quality standards,
- engineering support,
- Can provide Certified Installers throughout the USA and Canada.



# CUPOLEX®

## Product Design and Applications

### ▶▶▶▶▶ THE BENEFITS

- Arrives on site packaged and ready to be installed
- Quick and simple to install with basic hand tools
- Can be easily adapted to site variations
- Minimizes concrete wastage
- made out of 100% non-toxic recyclable material which can contribute to GREEN or LEED certified building
- One pallet of CUPOLEX replaces 7.5 trucks of gravel or fill
- Minimizes construction traffic damage
- Manufactured to ISO 9001:2000 high quality standards
- A full range of accessories and field support ensures secure construction

▶ **CUPOLEX** is a unique forming system for the construction of slab-on-ground Aerated Floors. Over the past 15 years the idea of pouring concrete over CUPOLEX® permanent void forms have become an increasingly popular foundation method.

Both slab on grade and structural slabs can be created using this formwork. Besides these advantages, there are significant cost savings to the builder and owner by using the CUPOLEX® flooring formwork in the design of Aerated concrete slabs for Residential, Industrial, Commercial and Institutional applications in sites with challenging soil conditions.

Made from 100% recycled materials, the forms provide the maximum performance and guarantee superior characteristics of stability and resistance in its structure to allow operations that are completed directly above the plastic CUPOLEX® elements before the placement of the concrete.

CUPOLEX® Technical department will provide a full scheme detailing all necessary components, and the optimum height of forms to be used.

## Accessory Components



**BETON STOP**® is for closing the side openings of the CUPOLEX® aerated forms. **BETON STOP**® compensates required dimensions different from those obtained by using the CUPOLEX® module, with no need to cut the CUPOLEX® units. **BETON STOP**® allows the CUPOLEX® aerated floor to be suitable for any project dimensions.



**PONTTEX**®, combined with CUPOLEX® can be used to create ribs in the slab so that aerated floors become self-bearing.



**WINDI** CUPOLEX **WINDI**® creates a ventilated floor on existing floors without affecting the structure of the building. The adoption of CUPOLEX **WINDI**® allows you to save on waterproof sheathing and guarantees a constant seal against dampness. CUPOLEX **WINDI**® may also be easily attached to walls to obtain an air space capable of ventilating and eliminating mould.



**CUPOLEX RIALTO**®: Forming system to create cast in place underground water slab tanks.



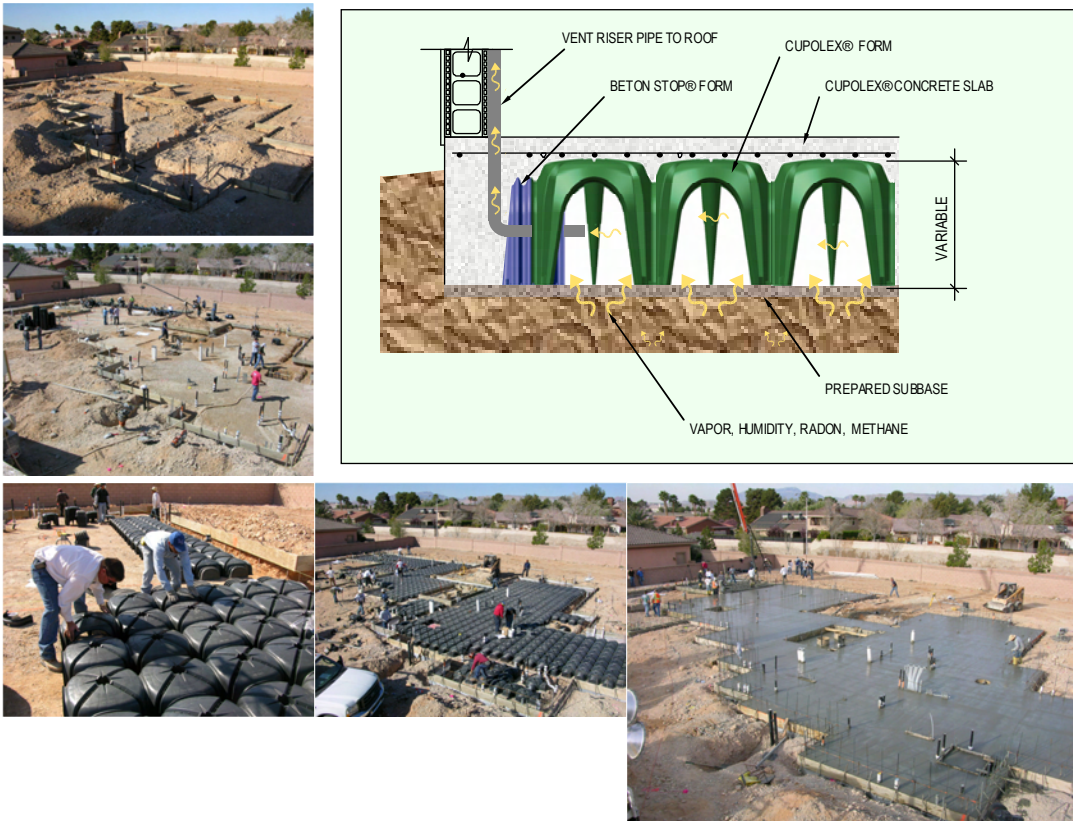
# Overview of Applications

## ► STANDARD SLAB ON GRADE

Typically a 175mm (7") or a 300mm (12") thick CUPOLEX® floor slab is used for a standard floor such as residential or light commercial using CUPOLEX® H. 13.5mm (5") Forms and H. 260 mm (10") Forms and the corresponding accessory BETON STOP®.

152x152 MW25.8/25.8 (6x6 W2.9/2.9) welded wire mesh with saw cuts or 6x6 W5.4/5.9 (4152 x 152MW34.9/34.) mesh without saw cuts are used in the topping throughout the slab. Additional reinforcing is used where increased load capacity is required such as garage areas or heavy loaded floors.

Where top soil layers are thick, higher CUPOLEX® can be used to create a deeper slab. This replaces the fill or gravel that typically is required to bring the slab to level and eliminate the costs associated with importing, compacting and certifying engineered fill.

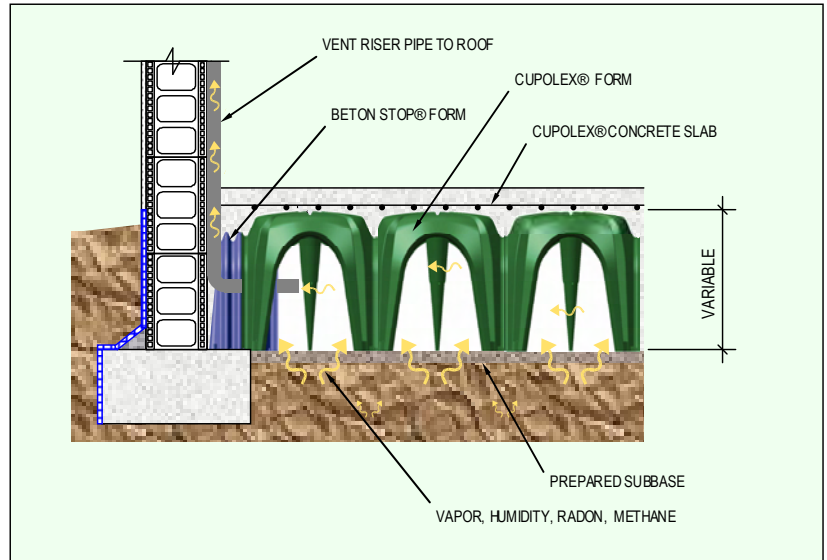




## ➤ CONVENTIONAL SLAB ON GRADE

### Compacted fill Replacement, Floating Slabs or Crawspaces

CUPOLEX® domes can be placed between foundation walls to replace the compacted hard fill or gravel. The CUPOLEX® units can be installed flush against the foundation wall with or without using BETON STOP®. On sloping sites various heights CUPOLEX® from 135 mm (5") to 70cm (28") high can be used, stepping down the site to form a level upper surface. The CUPOLEX® slabs can also be stacked if finished floor elevations are required to be higher.



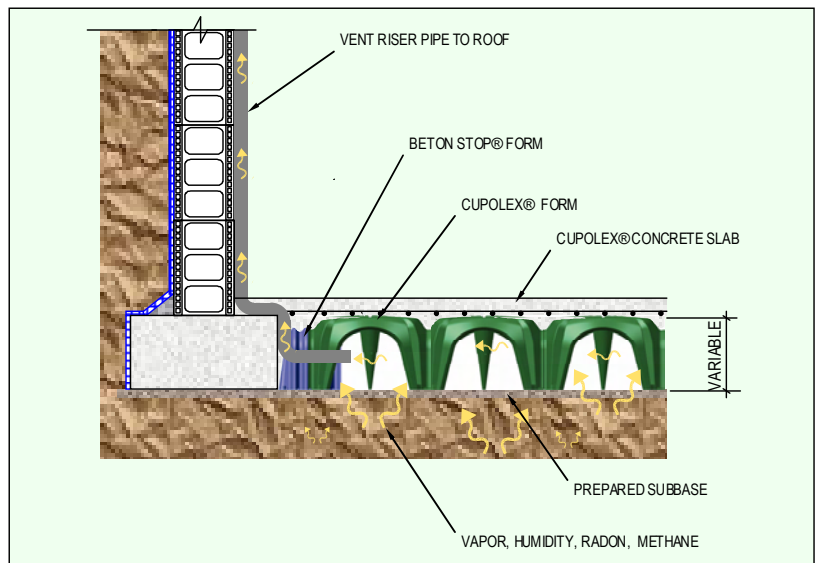
## NOTE:

A range of Standard Details are available on our website and can be downloaded for incorporation into plans and drawings.

Please visit [www.pontarolo.ca](http://www.pontarolo.ca)

## ➤ BASEMENT SLAB

CUPOLEX® domes can be placed between basement footings to replace the gravel and perform as a venting and draining layer. The CUPOLEX® units can be installed flush against the footings without using BETON STOP®. The footings and slab can also be monolithically poured by using the BETON STOP®.

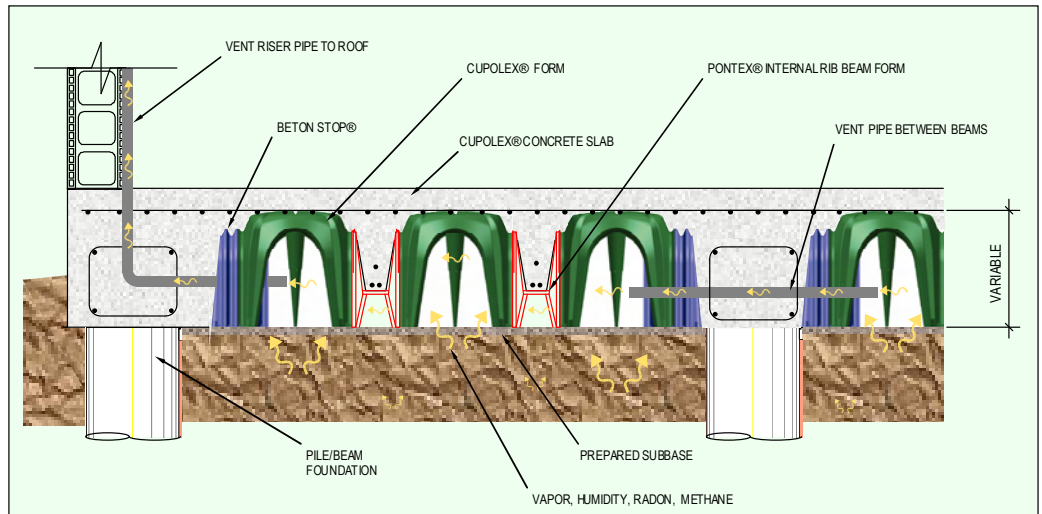




## ► STRUCTURAL SLAB

**Fully Suspended Floor Slab on beam/pile or stem wall foundations and Structural Ribbed Slab** - Reasons for a structural CUPOLEX® floor slab may include:

- Unsuitable ground conditions ( very low bearing pressures) or expansive soils
- Bridging over public storm water and sewer lines
- Slope stability issues



The CUPOLEX® floor slab can be fully suspended on reinforced concrete piles. Additional reinforced internal ribs are then used in the slab by introducing PONTTEX®, the structural CUPOLEX® accessory to provide a structure capable of spanning between stem walls or pile locations. Very little additional work or material is required to provide a structural floor slab system and in many cases exterior footing reinforcement remains unchanged. As with all slabs, each structural CUPOLEX® floor is specifically designed to suit site conditions and pile numbers may be optimized to limit additional costs. Contact our technical department for specific design calculations, drawings and details. Design Certificates should be provided for each design by an Approved Registered Professional Engineer in your state or province.



## ► INDUSTRIAL AND COMMERCIAL FLOOR SLAB

CUPOLEX® Dome Forming System can be specifically designed for industrial floors. Loads of more than 10 kPa can be accommodated with thicknesses ranging from 50mm (2 ") to 120mm (5") over the CUPOLEX® elements.

In industrial applications, the reinforcing cages, pad foundations, load bearing wall lines can be fixed into place first. The CUPOLEX® can then be used between load bearing lines to act as hard fill and to bring the slab up to the required elevation. The footings and the floor slab can be poured in one operation.





# Design Factors

## ► Slab on Grade - Designing Aerated Floor Slabs with Cupolex Forms

Plain non-structurally reinforced CUPOLEX® slabs can be economically and successfully used for a wide variety of load and site conditions. However, soils with very low bearing capacity, high compressibility, or that are highly expansive may require remedial treatment or special CUPOLEX® slab designs (structural reinforced CUPOLEX® slab, possibly with stiffening beams (PONTEX®) or CUPOLEX® slabs not directly supported by the soil. The design factors involved in determining the required floor slab on grade thickness are:

- Strength of the concrete (Concrete Modulus of Rupture)
- Strength of the subgrade-subbase
- Nature and frequency of imposed loads

## ► Post Loads and Concentrated Loads

Concrete bearing and shear stresses for CUPOLEX® slabs are computed using Design Methods to see whether the stresses are within allowable limits. But for very heavy posts, the required thickness of CUPOLEX® concrete slabs may be great enough that alternative designs should be considered, such as:

- Integral or separate footings under each post or line of posts (post locations would have to be permanently fixed) and formed with BETON STOP®;
- Structurally reinforced CUPOLEX® slabs with steel designed to take the tensile stresses;
- One or more PONTEX® elements added in areas subject to greater loads or exceptional stress;
- Use of a cement-treated subbase under the CUPOLEX® concrete slab.

## ► CUPOLEX® DESIGN PROGRAM SOFTWARE FOR SLAB ON GRADE

Cupolex Building Systems provides free of charge a FEM Design Program Software called EASY CUPOLEX and CUPOLEX-PONTEX Software. The Programs use the schematizations "Plate Model" according to cap. 4 and 5. This numerical schematization is suitable for design purposes and supplies an adequate level of representation of the interaction of the CUPOLEX® floor with the ground. The research and testing document, available in our Technical Library, prove the validity of the numerical model for design purposes. Contact our technical department for more information on the CUPOLEX® software programs.

The following variables are considered by the CUPOLEX® Program

- Type of CUPOLEX®
  - Thickness of slab
  - Levels of reinforcement
  - Type of soil

The static behavior of the CUPOLEX® concrete floor depends on the following factors:

- 1) Geometry:
  - Dome geometry
  - Minimum thickness of the slab above the cupolex elements
- 2) Type of soil or subbase
  - Position of loads on the CUPOLEX® slab
  - Beam grid model (fig.1)
  - Plate model (fig.2)
  - 3D model (fig.3)

Also a non-uniform contact with the soil is taken into account (for example different yielding)

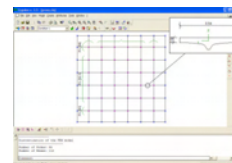


FIG.1

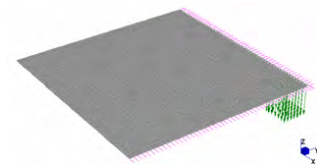


FIG.2

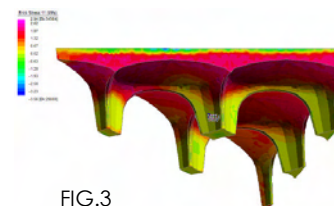


FIG.3



## ► CUPOLEX®

### LOAD CHART

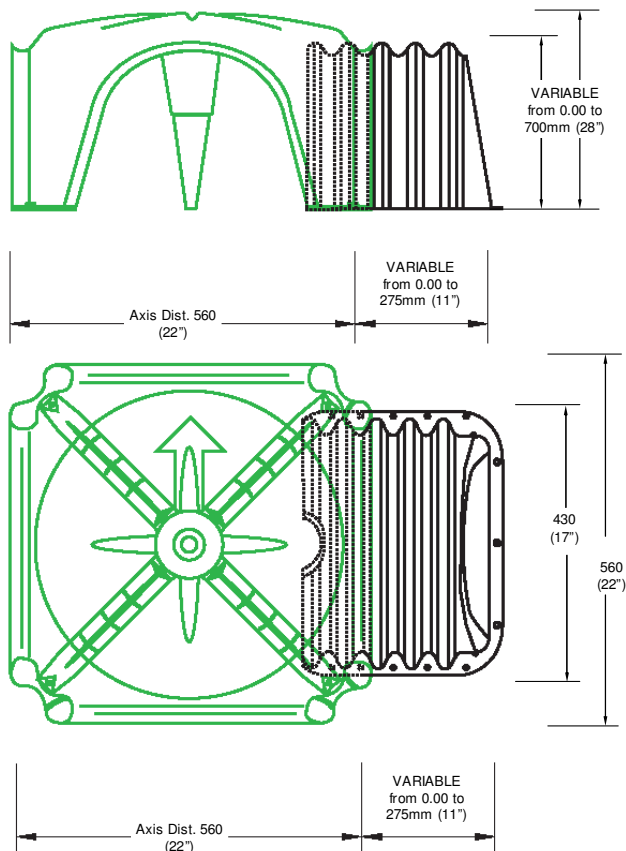
The values shown refer to the allowable uniformly distributed permanent dead-load depending on the slab thickness, type of subbase and soil bearing capacity.

The following are not considered:

- concentrated or point loads in loading and unloading areas (live load);
- variations in the rigidity of the soil on site
- geometric singularities effects or applied restrictions

The above aspects are to be analyzed during the final design and testing phase.

LOAD CHART - CUPOLEX									
Concrete Above Cupolex inches	Sub-Base	psf	SOIL BEARING CAPACITY psi						
			12	15	17	22	29	36	43
1.25	Untreated Subbase	psf	31	41	61	92	133	184	205
	Mud slab 4"	psf	410	492	533	533	533	533	533
	Mud slab 4" + Gravel 4"	psf	533	533	533	533	533	533	533
1.5	Untreated Subbase	psf		35	56	88	123	184	205
	Mud slab 4"	psf	410	481	533	553	573	573	573
	Mud slab 4" + Gravel 4"	psf	573	573	573	573	573	573	573
2	Untreated Subbase	psf		31	51	82	123	174	195
	Mud slab 4"	psf	399	471	522	573	614	614	614
	Mud slab 4" + Gravel 4"	psf	614	614	614	614	614	614	614
3.25	Untreated Subbase	psf			31	72	113	164	184
	Mud slab 4"	psf	389	471	655	819	1045	1045	1045
	Mud slab 4" + Gravel 4"	psf	1045	1045	1045	1045	1045	1045	1045
4	Mud slab 4"	psf	410	492	655	819	922	1126	1126
	Mud slab 4" + Gravel 4"	psf	1045	1045	1045	1045	1045	1331	1639
4.75	Mud slab 4"	psf	420	543	655	819	1045	1413	1710
	Mud slab 4" + Gravel 4"	psf	1045	1393	1587	1997	2048	2048	2048



CUPOLEX - SLAB ON GROUND SOLUTION

### Performance Characteristics

CUPOLEX® Form	Overall Form Depth		Clear Void Equivalent		Concrete Consumption to top of Forms	
	[mm]	[inch.]	[mm]	[inch.]	[m <sup>3</sup> /m <sup>2</sup> ]	[cy/sq.ft]
W005	50	2	40	1.57	0.008	0.0010
C1095	95	4	80	3.15	0.014	0.0017
W010	100	4	70	2.76	0.030	0.0036
C1013	135	5	110	4.33	0.030	0.0036
C1020	200	8	170	6.69	0.035	0.0043
C1026	260	10	220	8.66	0.045	0.0055
C1030	300	12	260	10.24	0.042	0.0051
C1035	350	14	310	12.20	0.045	0.0055
C1040	400	16	340	13.39	0.060	0.0073
C1045	450	18	390	15.35	0.064	0.0078
C1050	500	20	440	17.32	0.065	0.0079
C1055	550	22	490	19.29	0.065	0.0080
C1060	600	24	530	20.87	0.07	0.0085
C1065	650	26	580	22.83	0.071	0.0090
C1070	700	28	630	24.80	0.073	0.0095

CUPOLEX® Forms are molded in a variety of depths to deal with different levels of Vapor emission and for different depths of fill requirements

# Standard Applications

TYPE OF LOAD	LIVE LOAD	DEAD LOAD	SLAB THICKNESS ABOVE CUPOLEX	PRESSURE AT THE PILLAR	CEMENT TREATED SUBBASE THICKNESS	PRESSURE UNDER CEMENT TREATED SUBBASE	GRAVEL THICKNESS UNDER SLAB	GROUND BEARING PRESSURE
UNIT OF MEASURE	psf	psf	.inch	psf	.inch	psf	.inch	psf
HOUSING	40	15	0	0.23	0	~	0	0.23
			1	0.25	0	~	0	0.25
			1.5	0.26	4	0.043	0	0.043
			1.5	0.26	0	~	10	0.032
			1.5	0.26	4	0.043	10	0.028
PUBLIC BUILDINGS	100	40	2	0.4	0	~	0	0.4
			2	0.4	4	0.066	0	0.066
			2	0.4	0	~	10	0.045
			2	0.4	4	0.066	10	0.032
GARAGES	60	40	2	0.31	0	~	0	0.31
			2	0.31	4	0.053	0	0.053
			2	0.31	0	~	10	0.037
			2	0.31	4	0.053	10	0.031
INDUSTRIAL BUILDINGS	350	60	3	0.95	0	~	0	0.95
			3	0.95	4	0.15	0	0.15
			3	0.95	0	~	10	0.096
			3	0.95	4	0.15	10	0.063

Housing							
SUBBASE TYPE	DISTRIBUTED LIVE LOAD psf	SUPERIMPOSED DEAD LOAD psf	MIN CONCRETE ABOVE CUPOLEX .inch	MIN SOIL BEARING psf	MIN SOIL K-VALUE pci	MIN CONCRETE TYPE FOR SLAB psi	WELDED WIRE MESH type
UNTREATED SUBBASE	40	15	2	2000	100	3000	6x6 W2.9/2.9
2" COMPACTED GRAVEL	40	15	2	1500	50	3000	6x6 W2.9/2.9
1.25"(1500psi)CEMENT SUBABSE	40	15	2	1500	50	3000	6x6 W2.9/2.9

Public Buildings							
SUBBASE TYPE	DISTRIBUTED LIVE LOAD psf	SUPERIMPOSED DEAD LOAD psf	MIN CONCRETE ABOVE CUPOLEX .inch	MIN SOIL BEARING psf	MIN SOIL K-VALUE pci	MIN CONCRETE TYPE FOR SLAB psi	WELDED WIRE MESH type
UNTREATED SUBBASE	100	40	3	5000	150	3500	6x6 W2.9/2.9
2" COMPACTED GRAVEL	100	40	2	2500	100	3500	6x6 W2.9/2.9
1.25"(1500psi)CEMENT SUBABSE	100	40	2	1500	50	3500	6x6 W2.9/2.9

Garages							
SUBBASE TYPE	DISTRIBUTED LIVE LOAD psf	SUPERIMPOSED DEAD LOAD psf	MIN CONCRETE ABOVE CUPOLEX .inch	MIN SOIL BEARING psf	MIN SOIL K-VALUE pci	MIN CONCRETE TYPE FOR SLAB psi	WELDED WIRE MESH type
UNTREATED SUBBASE	60	40	3	3500	150	3500	6x6 W2.9/2.9
2" COMPACTED GRAVEL	60	40	2	2000	100	3500	6x6 W2.9/2.9
1.25"(1500psi)CEMENT SUBABSE	60	40	2	1500	50	3500	6x6 W2.9/2.9

**NOTE\***

Standard Designs have been verified to meet ACI and Canadian Standards.  
Self Weight of concrete slab has been considered in verification of soil stress.



# CUPOLEX®

## BUILDING SYSTEMS

For more detailed CUPOLEX® literature or other solutions.  
Please contact our technical sales department at 1.866.766.8276

For a range of design led applications

For forming ribbed concrete floors

For protecting foundations against ground movement

For void forming, landscaping and fill applications

For preemptive mitigation solutions

For vapor intrusion protection

For improving indoor air quality

To reduce the environmental impact of building

For lowering building costs

For reducing building cycle times

For reducing aggregate use

For protection against moisture and mold

For a range of product solutions and systems



If the contents of this brochure do not point to a solution for a Slab on Ground application, we urge contractors, design engineers and specifiers to contact our technical Sales line at 1.866.766.8276

Our reputation is built on innovation and we have the wealth of problem solving experience for you to call on.



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