

geotub

reusable system in ABS



- REUSABLE
- LIGHT
- MODULAR





GEOTUB VISION

CONSTRUCTION and RESPECT: This is the vision which characterizes the work of Geoplast. To build buildings respecting the environment. Beginning from the choice of the raw materials. Our plastic formworks perfectly embody this principle.

THE ANNUAL WORLD CONSUMPTION OF WOOD IS EQUAL TO 1.5 BILLION M3, OF WHICH 55% IS USED IN CONSTRUCTION

After having exhausted the resources of timber in Southeast Asia and Central Africa, logging is causing the deforestation of the Amazon Rainforest, which is considered the green lungs of our Planet.

In the last three decades 55 million hectares of rainforest have been cleared, an area corresponding to the territory of France.

This is why we decided to make our contribution creating a line of formwork in plastic, a recyclable material that is the only sustainable alternative to wood and cardboard.

We have made them with special attention to their light weight to reduce the waste of energy required for their handling: this is one more form of respect.

Geoplast S.p.A. in Green Building Council Italia,
Network of Green Building.





GEOTUB

THE FIRST FORMWORK IN ABS

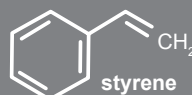
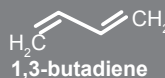
GEOTUB is the first formwork in technopolymer for the production of round and elliptic columns; it is a complete system for the creation of columns, both for residential and industrial use.

Extremely light and modular, **GEOTUB** is a new concept of reusable formwork, easy to store and cleanable just with water.



Why ABS

(Acrylonitrile Butadiene Styrene)



High mechanical strength

Shock resistance

Thermal stability
(-30°C / + 70°C; -22°F / + 158°F)

Very high surface quality

Recyclable Material

GEOTUB ADVANTAGES

The only light, reusable and modular system
for the production of round and elliptic columns

lightness



Weighting max 10 kg,
GEOTUB can be handled
quickly on site without
having to use cranes or
other mechanical lifting
devices

quickness



Light and easy to
assemble, it can be
installed by a single
person

modularity



All elements are
600 mm long and only the
elements necessary for
the pour are used

reuse



GEOTUB is cost
effective as it can be
reused **more than 100
times**

dismantling



Concrete does not stick to
plastic, thus dismantling
is extremely easy, and the form
can be cleaned with just a little
water, avoiding other detergents

storage



GEOTUB can be
completely dismantled
and stored even in damp
places

GEOTUB THE MODULAR FORMWORK

Up to 80 KN/m² fresh concrete pressure

REUSABLE

GEOTUB MATERIAL

Acrylonitrile Butadiene Styrene	ABS
Coefficient of thermal expansion	0.05 mm/m/°C

SIZE

Minimum diameter	250 mm
Maximum diameter	1000 mm
Height	600 mm (actual size 605 mm)



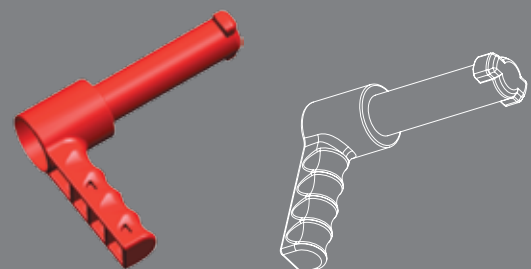
The handle

The standard fixing item
for all Geoplast Formwork

Light and intuitive

Firmly locks with a simple 90 degree turn

Strength guaranteed by specially engineered materials



HANDLE MATERIAL: POLYAMIDE - COEFFICIENT OF THERMAL EXPANSION 7-10 (1/K 10⁻⁵)

Items and accessories

DIMENSIONAL TABLES

actual size (mm)
material
weight (kg)
package dim. (mm)
Nr. pieces per pallet
Nr. handles



GEOTUB Ø25	
ø250 H605	
ABS	
2.96	
810 x 1210 x H2200	
60	
6	



GEOTUB Ø30	
ø300 H605	
ABS	
3.69	
930 x 1210 x H2450	
60	
6	



GEOTUB Ø35	
ø350 H605	
ABS	
4.28	
1030 x 1210 x H2260	
50	
7	

actual size (mm)
material
weight (kg)
package dim. (mm)
Nr. pieces per pallet
Nr. handles



GEOTUB Ø40	
ø400 H605	
ABS	
4.78	
1140 x 1210 x H1900	
40	
7	



GEOTUB Ø45	
ø450 H605	
ABS	
5.22	
1210 x 1230 x H2330	
48	
8	



GEOTUB Ø50	
ø500 H605	
ABS	
5.60	
770 x 1210 x H2100	
20	
8	



**GEOTUB
Ø60**

ø600 H605

ABS

6.48

770 x 1210 x H2350

20

9



**GEOTUB
Ø70**

ø700 H605

ABS

8.21

870 x 1210 x H2380

18

10



**GEOTUB
Ø80**

ø800 H605

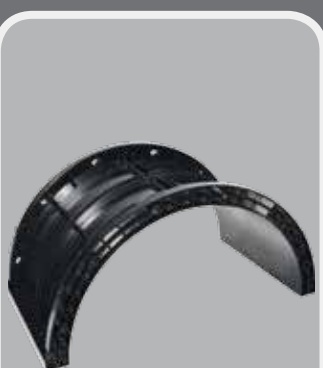
ABS

8.97

970 x 1210 x H2350

16

10



**GEOTUB
Ø90**

ø900 H605

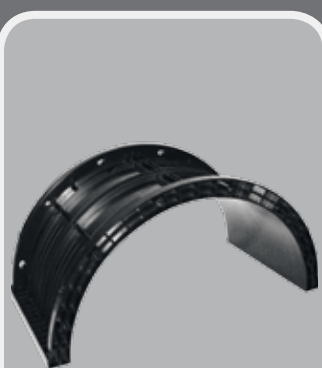
ABS

9.80

1070 x 1210 x H2530

16

11



**GEOTUB
Ø100**

ø1000 H605

ABS

10.70

1770 x 1210 x H2400

14

11



HANDLE

NYLON

0.1

2000 (bag)

5000

actual size (mm)

material

weight (kg)

package dim. (mm)

Nr. pieces per pallet

Nr. handles

actual size (mm)

material

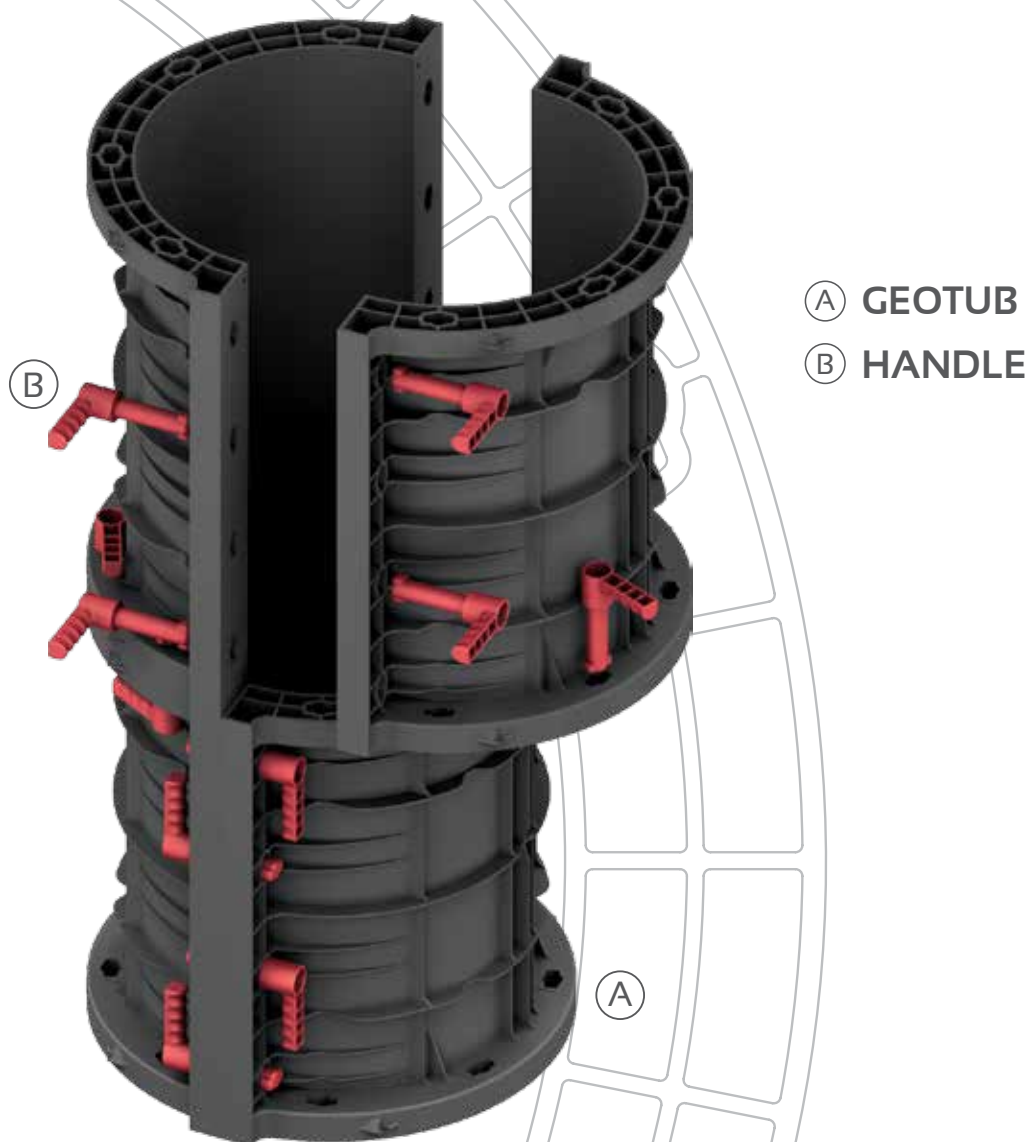
weight (kg)

package dim. (mm)

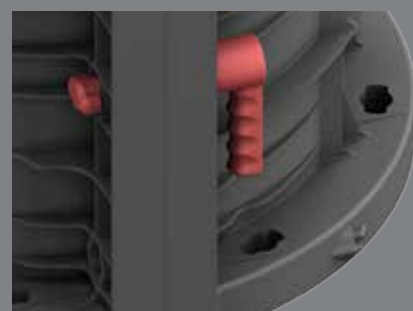
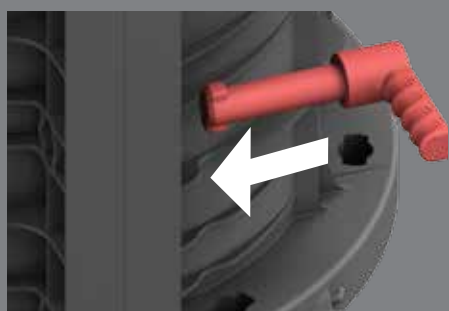
Nr. pieces per pallet

Nr. handles

GEOTUB INSTALLATION GUIDE



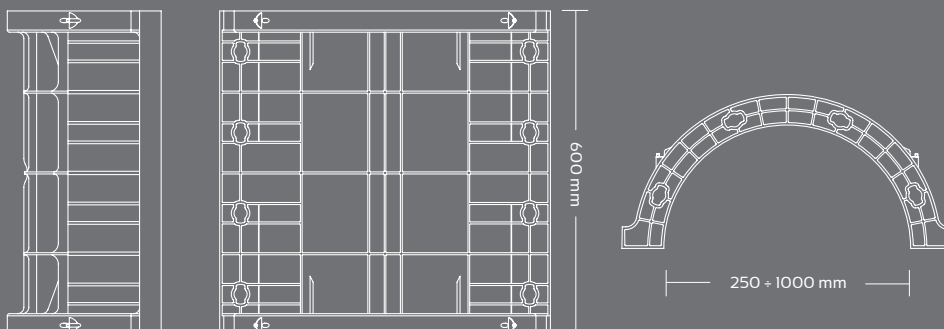
Handle locking



GEOTUB POUR HEIGHTS

GEOTUB configuration of a column of 3 mt

	○ ø Internal Form (mm)	○ Single form length (mm)	○ Nr. compo- nents per column of 3 mt (pz.)	○ Nr. handles per column of 3 mt (pz.)	○ Maximum Column Length (mm)
ø25	250	605	10	60	6000
ø30	300	605	10	60	6000
ø35	350	605	10	70	6000
ø40	400	605	10	70	6000
ø45	450	605	10	80	4800
ø50	500	605	10	80	4800
ø60	600	605	10	90	4800
ø70	700	605	10	100	3600
ø80	800	605	10	100	3600
ø90	900	605	10	110	3600
ø100	1000	605	10	110	3600



REUSABLE COLUMNS

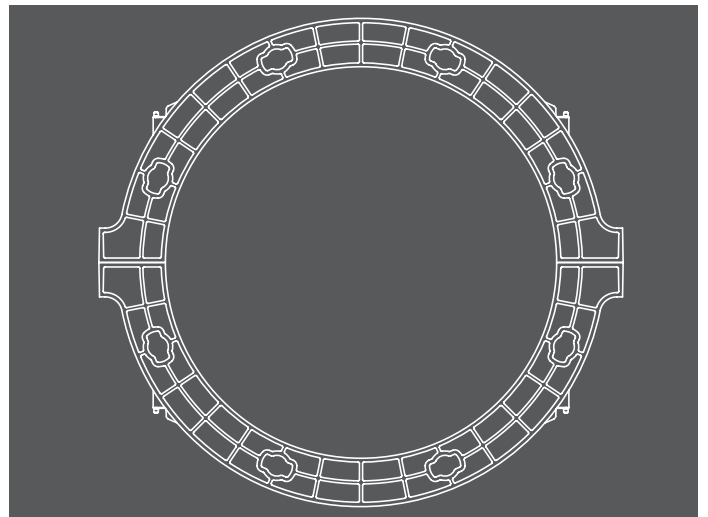


All-round advantages

GEOTUB is the first reusable plastic formwork for the creation of round columns. It allows a fast and easy dismantling without using releasing agents. The panels are very light: they can

be handled and installed by a single person. Properly assembled and dismantled, and cleaned just with water, the product can be reused more than 100 times.

Reusable
Easier handling
Smooth surface





MARINE SOLUTIONS



Water-resistant

Like all Geoplast formwork, **GEOTUB** is particularly suited to form columns when working in presence of water, which can make the work difficult and complex. In this case **GEOTUB** is the only possible solution, since it is made of ABS: in fact this material, compared to

cardboard and steel, does not suffer from degradation due to natural weathering. Moreover, the lightness and wieldiness of **GEOTUB** simplify the most complex tasks in a challenging environment, improving the productivity and safety of the buildin site personnel.

Easy to handle
Does not suffer weathering
Reusable



SEISMIC HAZARD RETROFIT



Increasing of cross-section

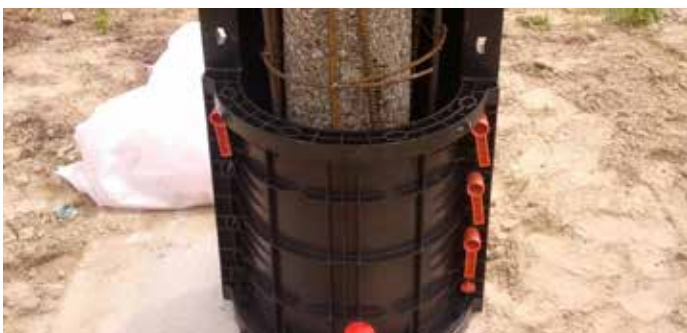
The cross-section of a column may need to be increased in order to improve its resistance - seismic retrofit is a typical example. **GEO-TUB** modular formworks are easy to handle manually and allow to work even in tight spaces, where steel form-

work is either too heavy or bulky and cannot be used. Moreover the **GEOTUB** formwork is assembled around the existing concrete object, a solution which is often not possible using a one-piece expendable formwork such as a cardboard tube.

Easy to assemble

Light panels

Easy to handle



RENOVATION OF DEGRADED COLUMNS

Reinforcement of exposed iron

In the case of deteriorated columns, in which the rebar is exposed due to degradation of the concrete, it is necessary to restore the correct cover. **GEOTUB** is the ideal tool for concrete column repair, especially when the

use of expendable one-piece formwork is geometrically impossible to slide around the object. **GEOTUB** also has a definite advantage over classic metal formwork in terms of size and weight.

Quickly assemblable
Practical on-site
Reusable



ELLIPTIC COLUMNS

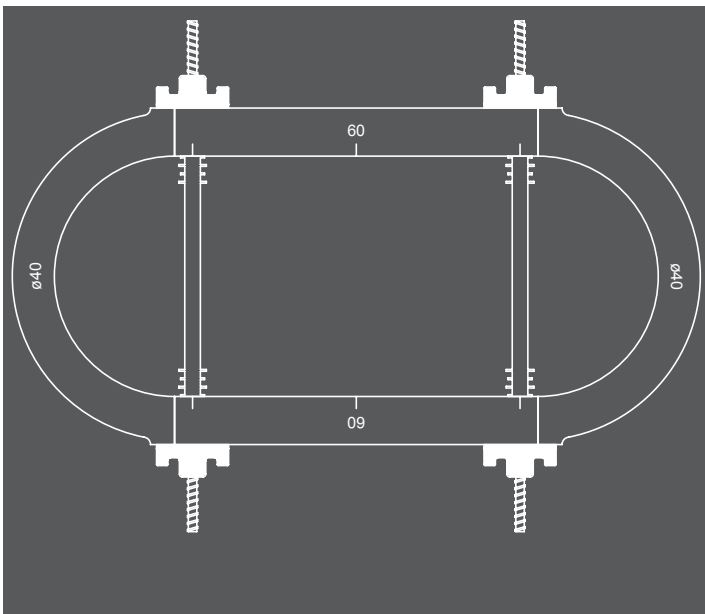


GEOTUB $\varnothing 25/30/35/40/45/50/60$ & GEOPANEL

The ideal solution for car parks

Most of the **GEOPLAST** formwork panels share the same module and different systems are compatible with one another. **GEOPANEL** and the **GEOTUB** circular column formwork work together very efficiently to pro-

duce elliptic columns. This is a very useful tool for the production of elliptic columns in multi-storey car parks, much appreciated for their slender looks and the better maneuvering space given to vehicles.



PRECAST COLUMNS



Serial production of columns

GEOTUB system is highly competitive not just for the production of in-situ cast columns, but also for the creation of precast columns. ABS formwork is ideal for the manufacturing

of serial precast columns as it is very robust and produces an extremely smooth finish. Furthermore it can be reused for more than 100 times.

Very strong
Easy to handle inside
industrial sheds
No releasing
agent required



ELECTRICAL GRID NEW FOUNDATIONS

Foundations for electricity pylons

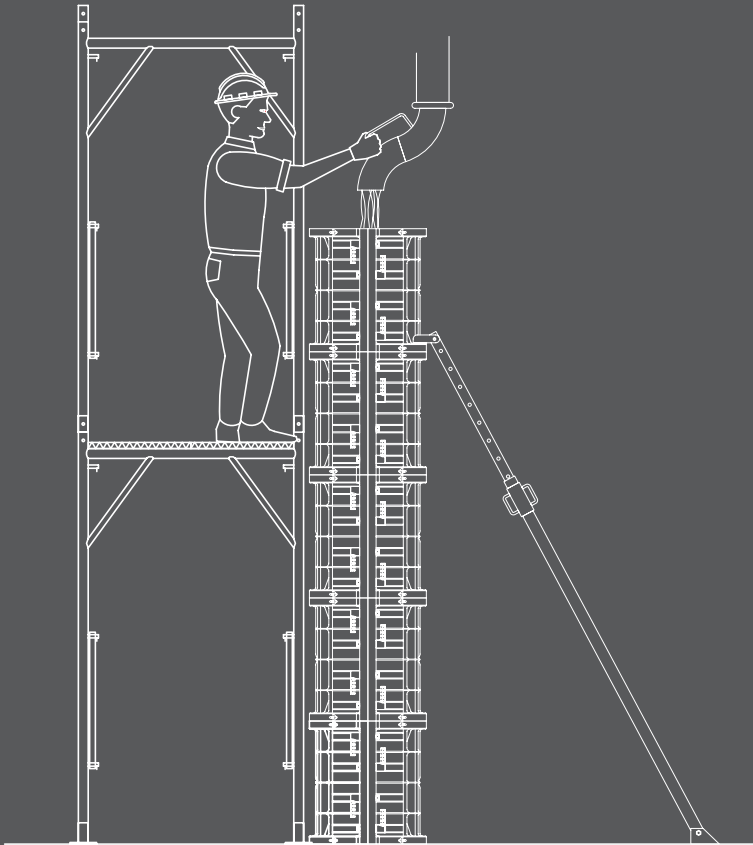
GEOTUB is particularly suited for the creation of new foundations for electricity pylons. Thanks to its lightness it is easy to handle manually and simple to assemble. Its modularity and the possibility of a lateral installation through side handles is fundamental due to the characteristics of the building site, which do not allow to insert the formworks from the top.

Lateral installation
Modular
Reusable



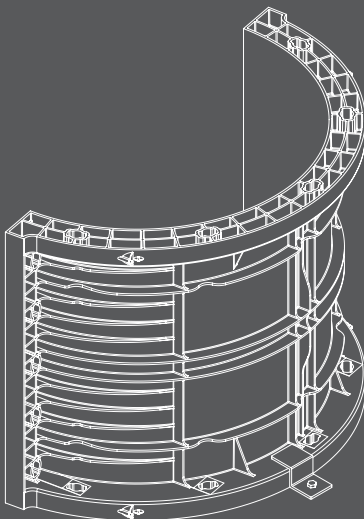
GEOTUBE TECHNICAL GUIDE

A) SHORING



Shoring is performed using the connector plate, which is available in various sizes to suit any commercially available prop.

B) GROUND FIXING



Ground fixing can be made using wooden reinforcements, fixing brackets or tie rods. This fixing method avoids the possible lifting of the panels.

OPERATION AND MAINTENANCE REQUIREMENTS

POUR

Only immersion concrete vibrators are allowed. ABS formworks are not fireproof, so do not place them close to hot objects or open flame.

HANDLING

Use Geopanel lifting clamp to transport the already assembled panels with a crane. Before lifting make sure that the lifting cables have an uniform draft.

PANEL CLEANSING

After every use, clean the panel with water (preferably with a pressure washer). Any deposit of concrete should be removed with a spatula or a wire brush.

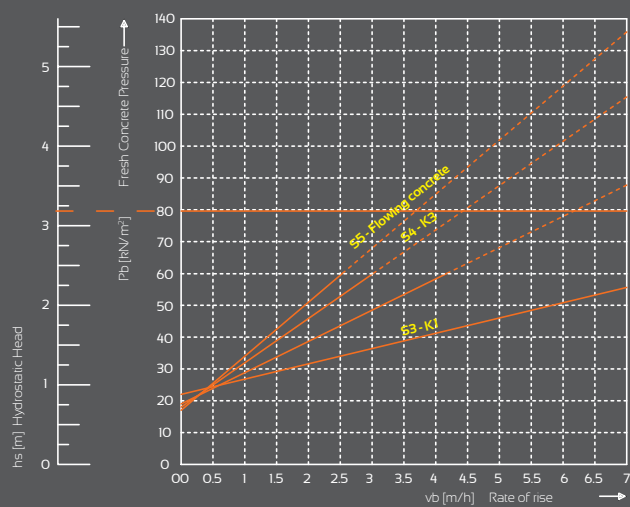
RELEASING AGENT

As long as the contact surface of the panels does not show signs of wear, no releasing agent is required.

STORAGE

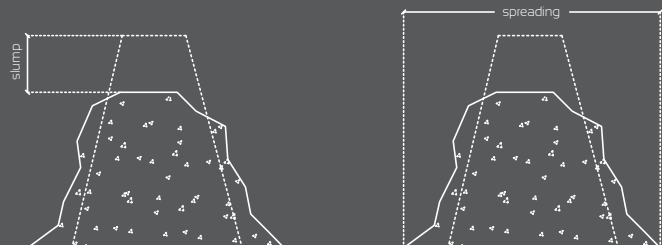
In order to facilitate the handling and lifting of the panels and all accessories, store them on pallets or battens to keep them off the ground. Although the product does not suffer weathering, it is preferable to store the panels in a dry place away from direct sunlight.

RATE OF RISE DIAGRAM



CONSISTENCY CLASS	UNI EN 206:2006		DIN 18218	
	CLASSIFICATION	SLUMP	CLASSIFICATION	SPREADING
Wet	S1	10 ÷ 40 mm		
Stiff	S2	50 ÷ 90 mm	F1 (K1)	≤ 34 cm
Plastic	S3	100 ÷ 150 mm	F2 (K2)	35 ÷ 41 cm
Soft	S4	160 ÷ 210 mm	F3 (K3)	42 ÷ 48 cm
Flowing	S5	≥ 220 mm	F4 (flowing)	49 ÷ 55 cm

ABRAMS CONE



SAFETY REQUIREMENTS

The operations of positioning, assembling, dismantling, plumbing, handling and cleaning of GEOTUB products, as well as the pouring of the concrete, must be carried out by competent and properly trained personal or under supervision of the site manager or an Engineer of Geoplast S.p.A., who must ensure that:

- All above mentioned operations are carried out properly,
- Every person working with the formworks is equipped with suitable tools and personal protective equipment to perform all necessary actions in full compliance of the safety standards,
- All panels and the supplied accessories are checked before use, discarding those which do not meet the minimum standard of reliability and safety because of the presence of any breakage and/or deformation,
- The formwork is installed on a perfectly flat surface, so as to work safely and ensure a perfect shoring and plumbing,
- All connection, alignment and plumb accessories of the formworks are properly tightened and secured to the ground before starting the pour.

Geoplast S.p.A. disclaims any liability or responsibility arising from improper use of **GEOTUB** formworks. Any assembly of molds and/or use of accessories otherwise described in this guidelines must first be approved by Geoplast S.p.A.



GEOPLAST S.p.A.

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