English

For faster construction

BT innovation

Syflex®

Flexible Formwork for Straight Lines and Concrete Curves

www.bt-innovation.de

B.T. innovation GmbH

Sudenburger Wuhne 60
39116 Magdeburg
Germany

Call us
+49 391 7352 21

Write to us
export@bt-innovation.de

www.bt-innovation.de

Contents

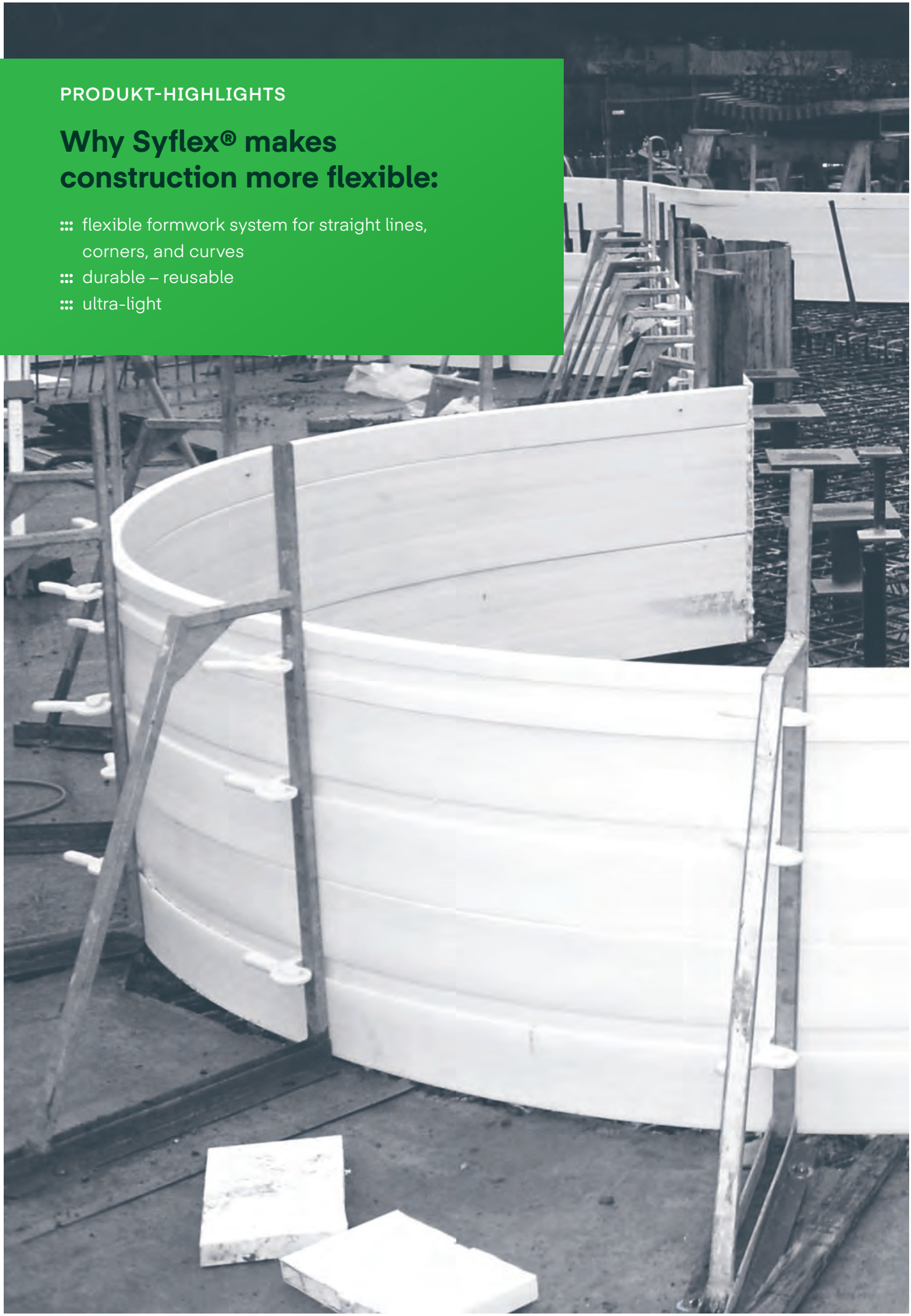
We will be glad to send you our current product catalogs.
Write us: **export@bt-innovation.de**

You can also use the download area on our website.
https://www.bt-innovation.de/en/service/downloads/

PRODUKT-HIGHLIGHTS

Why Syflex® makes construction more flexible:

- flexible formwork system for straight lines, corners, and curves
- durable – reusable
- ultra-light



FLEXIBLE SHUTTERING FOR STRAIGHT LINES AND CURVES

Syflex®

What is Syflex®?
With our flexible formwork system Syflex®, you can easily make straight lines, curves and corners. Syflex® is the optimum solution for base slab, edge and strip foundation formwork.

Increasing demands are made in terms of the shape of concrete. Formwork for curves always presents a problem in this respect.

Conventional formwork systems for this task are very labour-intensive, costly and not very flexible. Bulky and heavy wooden planks demand time and have a detrimental effect on the work process, and special formwork is costly. The Syflex® formwork system means there is a solution available which is easy to handle, as it is only one third of the weight of comparable wooden formwork, and can be assembled without hoisting devices within a very short time. The system enables formation of straight lines, curves and corners with a minimum of effort and in addition can be reused many times over.

Syflex® gives you concrete in almost any shape you want. However, Syflex® is not just the best possible way of making formwork for foundations, the system also has a proven track record in road building and in garden and landscape architecture. The multiple application options make Syflex® a genuine allrounder on the formwork market.

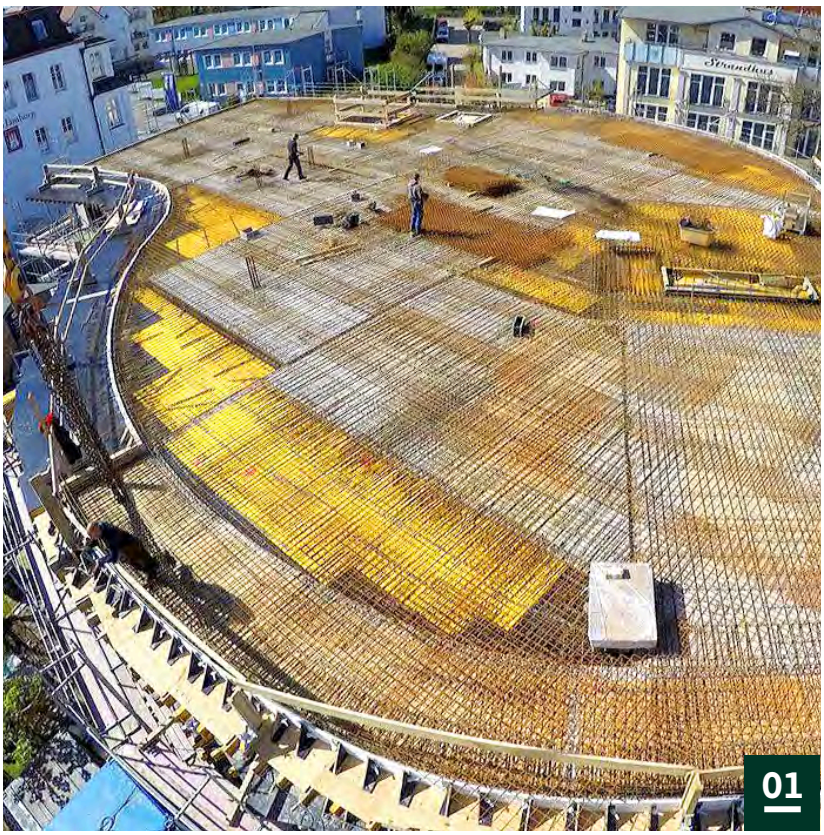
Why Syflex®?
The formwork boards can be extended using connections, both in straight lines and in flexible shapes. System eccentrics then ensure quick fixation to pegs, planks or mounting brackets which have been driven in. This configuration is also used for the vertical connection of the formwork boards which stand one on top of the other.

Applications

- **Slabs, edge and strip foundation formwork**
- **Ceiling edge and ring beam formwork**
- **Bordering**
- **Silo construction**
- **Roundabouts**

Benefits

- **Ultra-light, elastic materiall**
- **Individual shaping possible by cutting on-site**
- **Fast assembly and disassembly**
- **Levelling with millimetre precision for smoothing the concrete off.**
- **Reusable many times over**
- **Formwork radii to 1 m can be created in sections**
- **Simple disposal, PE**



Application example with Syflex®

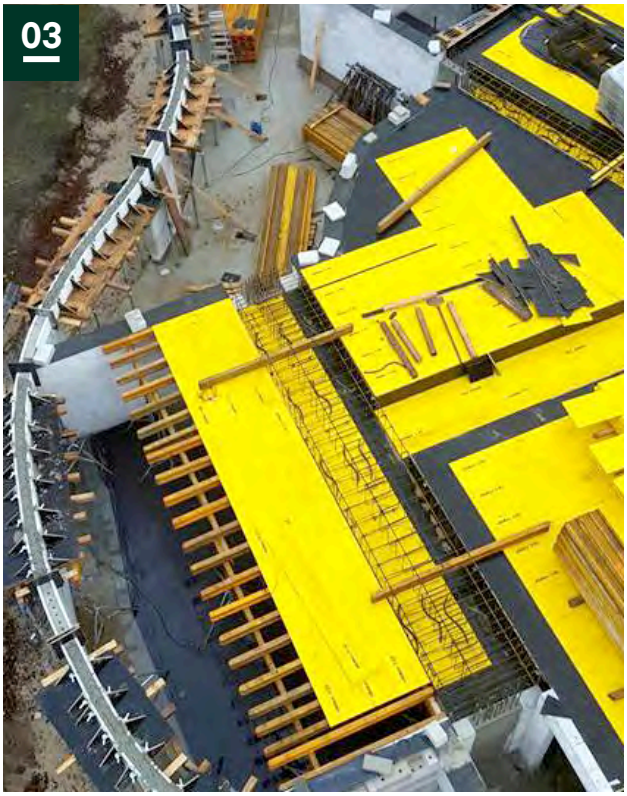
01 Syflex® as round slab edge shutteringg

02 Syflex® as shuttering for tank slabs

03 Syflex® as strip foundation

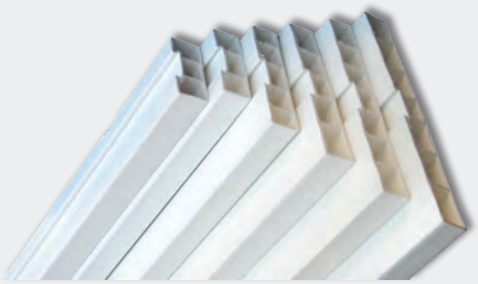
04 Syflex® as round shuttering

05 Syflex® as strip foundation



Item overview

01
System eccentric



02
Syflex® in various heights

03
Shuttering pedestal

Heights - Syflex® Formwork system

The Syflex® formwork system consists of individual formwork profiles in heights of 100, 150, 200, 250 or 300 mm as well as the system eccentrics for fastening the formwork profiles to the on-site bracing.
The connection of 2 formwork elements can be made by means of plastic tubes, which are screwed onto the profile.

Item no	Product	Beschreibung	Masse
2001066	**Syflex®** 100 mm flexible shuttering element	Element length 5.0 m 800m/pallet	0,79 kg/m
2001065	**Syflex®** 150 mm flexible shuttering element	Element length 5.0 m 260m/pallet	1,17 kg/m
2001064	**Syflex®** 200 mm flexible shuttering element	Element length 5.0 m 180m/pallet	1,59 kg/m
2001063	**Syflex®** 250 mm flexible shuttering element	Element length 5.0 m 180m/pallet	1,96 kg/m
2001062	**Syflex®** 300 mm flexible shuttering element	Element length 5.0 m 150m/pallet	2,34 kg/m

Accessories

Item no	Product	Description
2001055	**Syflex®** system eccentric	50 pieces / bag
2001056	**Syflex®** shuttering pedestal	H = 100cm; galvanised
2002309	**Syflex®** tube spacer 22/26	L = 2 m
2002303	**Peg** 110 cm; D = 20 mm	Head and square point forgedt
2002131	**Peg** 80 cm; D = 20 mm	With head

Application

01

Syflex shuttering elements can be fastened with pegs, boards or fastening brackets. The distance of the fastening depends on the subsoil properties and the maximum tolerated deflection of the shuttering elements. In order to achieve a higher profile rigidity, it is possible to stiffen the shuttering element in the cavities with a galvanised U-profile. We recommend setting the pegs/boards closer in curves to absorb the resulting tension. In case of a joint between two shuttering elements and corner formations, the pegs/boards must be positioned close to them.

02

After setting the bracing (pegs, boards, shuttering bracket), the Syflex® shuttering profile is leaned against the bracing and fastend by means of a system eccentric. To do this, the Syflex® system eccentric is positioned on the rear side of the shuttering element and turned into the groove. The shuttering element is fastened to the brace by switching over the eccentric lever.

03

To align the shuttering to the exact height, loosen the system eccentric slightly and the shuttering element can then be adjusted according to the height. Then tighten the system eccentric again. The work is then finished.

NOTE: THE PROCESSING INSTRUCTIONS IN THE TECHNICAL DATA SHEET APPLY

Assembly

01

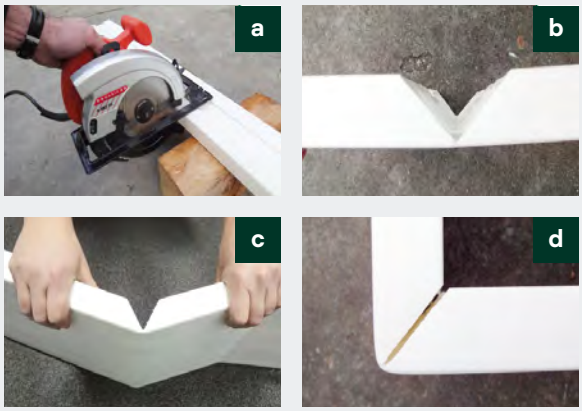
Outside corner

For outside corners, the shuttering elements are sawn in at appr. 3 cm at the corresponding place backside and afterwards they are being kinked.

02

Inside corner

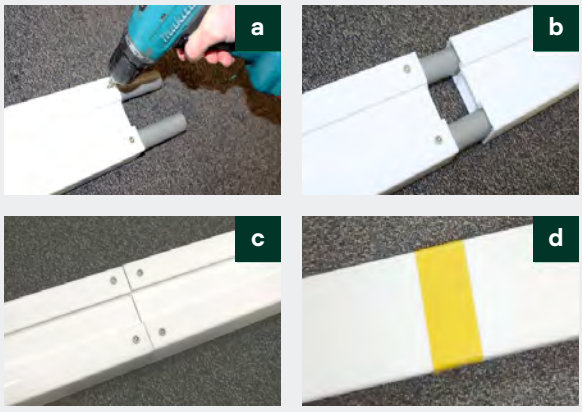
For inside corners, the shuttering elements are cut to a mitre of appr. 3 cm on the back and then kinked accordingly.



03

Connection

The connection of two shuttering elements is achieved by means of two plastic tubes which are inserted into the shuttering element. The tubes are inserted halfway into the first shuttering element and secured with a screw. Now insert the first shuttering element into the second, push them together and fix with screws. Finally, the joint is covered with adhesive tape. Finished!



Application example with Syflex®

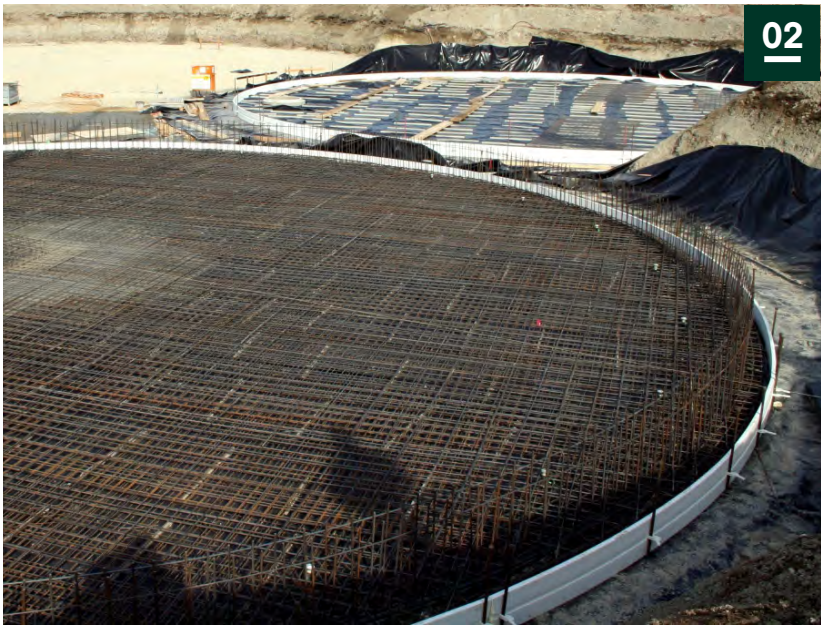
01 Syflex® **as strip foundation**

02 Syflex® **as formwork for a tank bottom slab**

03 Syflex® **as strip foundation**

04 Syflex® **after stripping the formwork**

05 Syflex® **as strip foundation**



Application example with Syflex®

06 Syflex® **in wind turbine construction during concreting**

07 Syflex® **for the construction of a traffic circle**

08 Syflex® **as roadside formwork**

09 Syflex® **as edging for beds and plants**

10 Syflex® **as strip foundation**

Technical data

Payback period

Syflex® generally pays for itself at the latest when it is used for the third time. When it is first used, there is an expenditure which is similar to that for conventional wooden shuttering. When it is used for the second time, the expenditure is equiva-lent to lost formwork and Syflex® already pays for itself when it is used for the third time. When used properly, it is possible to use it at least 20 times.

Processing instructions

The stability of the formwork is significantly influenced by the following factors:
::: Ambient temperature
::: Concrete consistency
::: component height
::: Distance of the support
::: Stiffness of the substructure
::: The distance of the support should be chosen so that, the formwork has the required stability.
::: The following distances can be used as a rough guide

Height of the formwork h[cm]	30	50	75	100
Approx. distance [cm]	60 - 80	50-60	40- 50	30 - 40

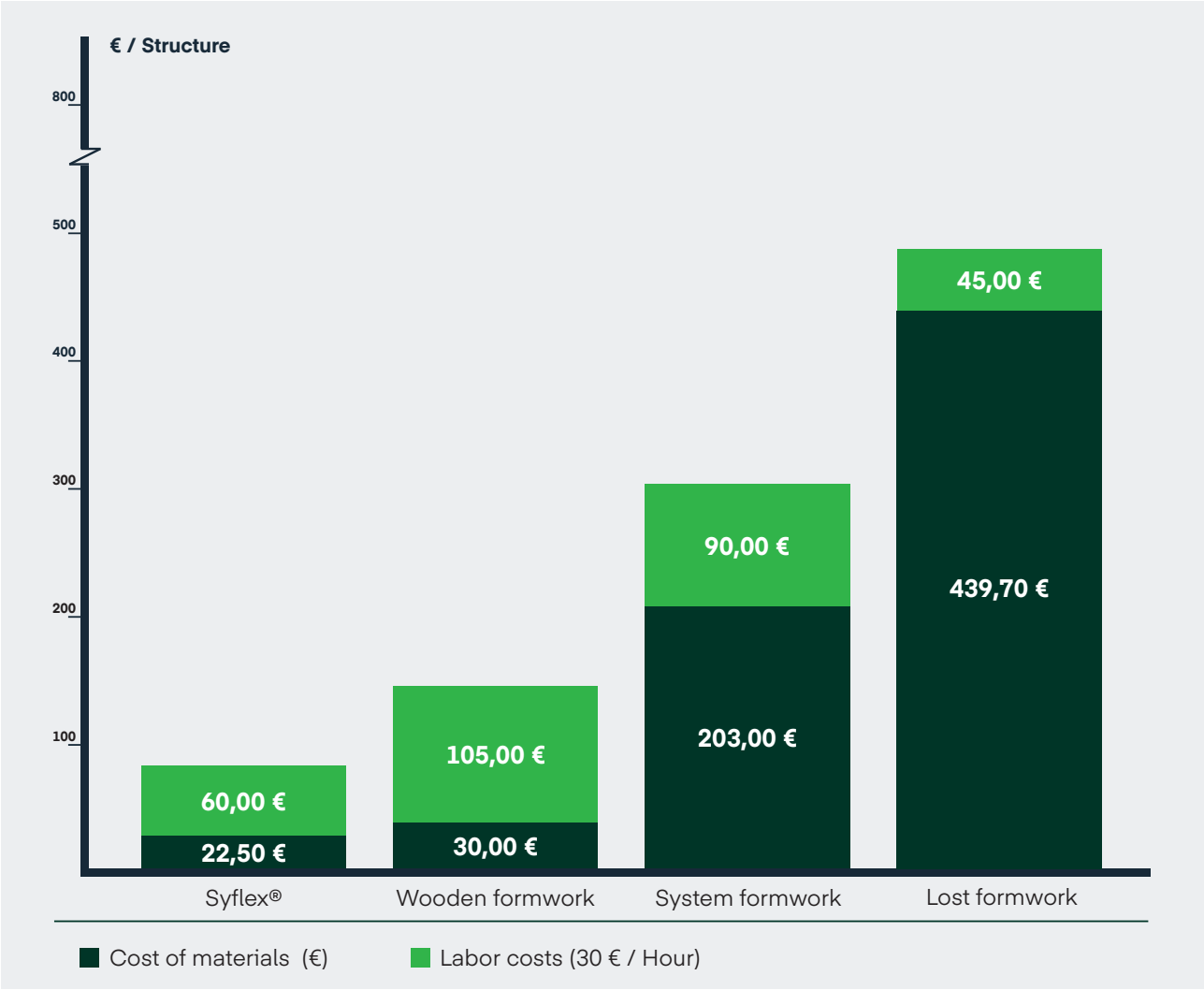
::: Tighter clearances may be required for bends and high tolerance requirements.

Maximum deflection

Calculation principles for the maximum deflection of the formwork elements:
Most unfavourable assumption with regard to modulus of elasticity and configuration of the various profile heights, temperature 25°C, concrete B25. Pegs, planks or similar do not shift and are firmly anchored into the substrate.

Height of the formwork h [cm]	30	50	75	100
Line load q [N/cm]	0,5	0,9	1,4	2,0
Distance of the stiffener a [cm]	Maximum deflection [cm]			
40	0,01	0,03	0,05	0,07
60	0,10	0,15	0,25	0,30
80	0,28	0,50	0,75	0,95

Cost comparison - edge formwork 25 cm high



Benefit comparison

	Reusable formwork	Without hoist assemblen	Customized Shaping	Curves malleabler
System formwork	✓	(✗)	(✗)	(✗)
Wooden formwork	(✓)	(✓)	(✗)	(✗)
Lost formwork	✗	(✓)	(✓)	(✗)
Syflex®	✓	✓	✓	✓

✓ Applicable (✓) Conditionally applicable (✗) Usually not provided ✗ Not applicable

Offer text

Item 1 Formwork for strip foundations

Installing double-sided formwork for strip foundations using flexible, reusable PE formwork.
Constructing the formwork according to manufacturer's instructions.

- Material: PE - plastic
- Flexible, shapeable and reusable
- Can be used for both straight lines and curves

Costs of all proportionate fixing elements are to be included in the UP.
Costs for mechanical hoisting devices are not to be included in the UP due to the weight of the formwork and are not compensated separately either.

Make: Syflex® or equivalent
Height of the foundation slab:…. : cm

…….. lfm …….. € /lfm …….. €

Item 2 Formwork for foundation slabs

Installing single-sided formwork all around the foundation slab using flexible, reusable PE formwork. ..

- Material: PE - plastic
- Flexible, shapeable, reusable
- Can be used for both straight lines and curves

Costs of all proportionate fixing elements are to be included in the UP.
Costs for mechanical hoisting devices are not to be included in the UP due to the weight of the formwork and are not compensated separately either.

Make: Syflex® or equivalent

Height of the foundation slab: cm

…….. lfm …….. € /lfm …….. €

…….. …….. ……..

Spacers - The cost-effective alternatives

We offer spacers and formwork accessories for reinforced concrete construction made of plastic, steel and fiber concrete. We are glad to receive your inquiry.

Made of plastic and steel*

*In addition to the spacers shown, we offer other spacers for your project. We are looking forward to your inquiry.

Made of fiber concrete:

Contact us

B.T. innovation GmbH

Sudenburger Wuhne 60
39116 Magdeburg
Germany

Call us
+49 391 7352 21

Write to us
export@bt-innovation.de

Issue: 11/2020