NTIB

NOUVELLES TECHNOLOGIES
INTERNATIONALES DU BÂTIMENT

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«The main concern of mankind should be :
ECOLOGY »

M. Laraki, Chairman NTIB

NTIB - Nouvelles Technologies Internationales du Bâtiment,
An innovation in the construction sector

NTIB, A NEW MIXED STEEL-CONCRETE FLOOR CONSTRUCTION METHOD

ALLOWING A REDUCTION OF 30%

OF THE CARBON FOOTPRINT OF THE STRUCTURAL SHELL, OR EVEN MORE BY USING LOW-CARBON MATERIALS

INNOVATION FROM A DIVERSIFIED GROUP COMMITTED TO SUSTAINABLE CONSTRUCTION SOLUTIONS

The NTIB process embodies the innovation of a diversified group committed to a sustainable future. For several years now, the group has been developing construction **solutions with low environmental impac**t, with the ambition of **becoming a modern and unique player in the sector.**

The recent successes of **ecological villas in Benslimane** and Marrakech, and the launch of **an ambitious residential project using the NTIB process** in Casablanca's financial district, perfectly demonstrate the Group's determination to put its values into practice.

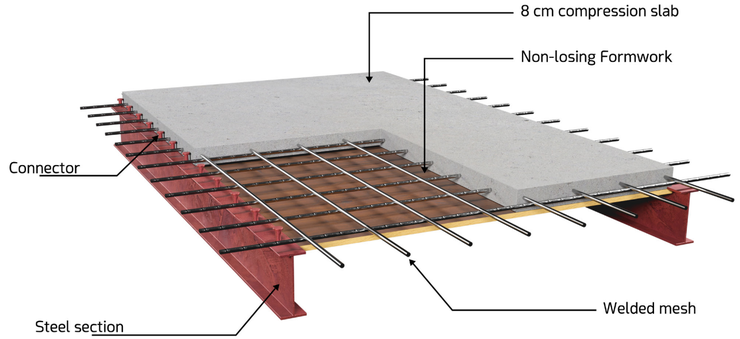
SOLUTIONS & REFERENCES IN GREEN BUILDING

COMPRESSED EARTH BRICK (BTC)	PROCESS OF MIXED STEEL AND CONCRETE FLOOR (NTIB)	SUSTAINABLE CONSTRUCTION REFERENTIAL (HEI)	ECOLOGICAL VILLAS	MAGNOLIA PARK FIRST LOW CARBON BUILDING CASABLANCA

SCHEMATIC DIAGRAM OF THE NTIB PROCESS

This innovative process uses **metal sections** combined with an **8 cm compression slab**, using **NTIB's own self-props**.

Thanks to its **operational simplicity**, speed and **economic and ecological advantages**, NTIB aims to democratize its process internationally.



THE NTIB PROCESS

WITH ITS OWN CALCULATION, SIZING AND OPTIMIZATION SOFTWARE

NTIB
NOUVELLES TECHNOLOGIES INTERNATIONALES DU BÂTIMENT

INTERNATIONALLY PATENTED

INPI INSTITUT NATIONAL DE LA PROPRIÉTÉ INDUSTRIELLE
Europäisches Patentamt · European Patent Office · Office européen des brevets
OAPI Organisation Africaine de la Propriété Intellectuelle
ARIPO
EAPO
EURASIAN PATENT OFFICE

ANALYZED AND VALIDATED BY CSTB IN COMPLIANCE WITH EUROCODES

CSTB
le futur en construction

DEKRA

WITH TWO COMPARATIVE LCA

EVEA CONSEIL
& ENVIRONMENTAL DIVISION CSTB

evea
fabrique de solutions durables

CSTB
le futur en construction

MAGNOLIA PARK:
NTIB SIGNATURE IN CASABLANCA

A PROCESS WITH A HOLISTIC IMPACT THANKS TO ENVIRONMENTAL, TECHNICAL AND ECONOMIC ADVANTAGES

THE ECOLOGICAL BENEFITS OF SIGNIFICANTLY REDUCING CARBON FOOTPRINT OF THE STRUCTURAL WORK PACKAGE

Up to 40% less CO2
thanks to lower volumes of concrete and steel

This **reduction can be increased with low-carbon materials**

Significant reduction in the overexploitation of non-renewable **natural resources: water, sand and aggregates.**

SIMPLIFIED IMPLEMENTATION, MAKING IT EASY FOR SITE CREWS TO ADOPT THE SYSTEM

No ATEx required

No vertical props

Recoverable and reusable formwork

Use of self-props to **free up subfloor space** during the entire compression slab pouring and drying phase.

FLEXIBILITY AND ADAPTABILITY FOR AMBITIOUS ARCHITECTURAL DESIGNS

Ranges up to 12m

Overhangs of more than 4m, enabling the creation of hanging gardens as carbon sinks

Better resistance to seismic stress

Higher operating expenses

OPERATIONAL BENEFITS IN TERMS OF TIME AND COST SAVINGS

Less need for dry disbursements (EPS, steel, props, etc.)

Pour slab and beams over the entire floor surface in a single step

UP TO 40% REDUCTION IN GHG EMISSIONS

SIMULATIONS OF SOLID SLAB PROJECTS VS NTIB

	SAVINGS ON MATERIAL QUANTITIES		ENVIRONMENTAL IMPACT
	Concrete	Steel	GHG emissions
Building A R+10	30%	29%	Less **30%**
Building B FLOOR TO FLOOR **R+16**	40%	17%	Less **40%**

COMPARATIVE LCA NTIB VS SOLID SLAB

	CARBON FOOTPRINT STRUCTURAL WORK LOT*
Building NTIB	**110** kg CO2 éq. per m²
Solid slab Building	**165** kg CO2 éq. per m²

*REF: CSTB ENVIRONMENTAL DIVISION

TOGETHER, LET'S ACT FOR A COLLECTIVE ECOLOGICAL TRANSITION

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