

BUILDING NEW DIMENSIONS



DYNAMax
The Ultimate Performance Concrete



MAKE MORE OUT OF CONCRETE

Leave limitations behind and bring your bold visions to life. Push the boundaries of engineering design to new heights and build new dimensions with the high strength, outstanding durability and superior rigidity of DYNAMax. DYNAMax is the high-performance, sustainable and resource-saving solution of choice for your project.

BEYOND CONCRETE

Developed by the most innovative minds in material design and application, DYNAMax is concrete that is characterized by high strength, outstanding durability, and superior rigidity combined with unrivaled expertise, experience and concrete know-how. In short: DYNAMax is the ultimate performance concrete for the new design trends, environmental challenges and technical requirements in the construction industry.

BUILD MORE WITH LESS

The increasing world population needs more housing and more infrastructure. Environmentally friendly products and construction are essential for the eco-balance of buildings. At the same time, land is scarce, financial resources are limited and natural resources must be conserved. The unique qualities of DYNAMax provide answers to meet these challenges in building construction and infrastructure following the principle of "Build more with less":

• **More design freedom:** DYNAMax opens up unimaginable design opportunities and a true architectural design freedom that enables you to execute your sophisticated and bold ideas in concrete. Thinking of the future in design, DYNAMax will facilitate planning and constructing in entirely new dimensions.

• **More space:** DYNAMax allows you to use thinner cross-sections for columns, walls and slabs as well as substantially longer spans and longer column grids. This offers greater design flexibility, improved functionality and more usable space for the same building volume.

• **More sustainable:** With DYNAMax you can execute components and structures for the same purpose with significantly less concrete and steel reinforcement. The reduced need for these building materials as well as the fact that it is produced locally with short transport routes improves the carbon footprint of the building. Furthermore, like all concrete, DYNAMax is fully recyclable and contributes to a positive circular economy, making it the ideal resource-saving building material for your project.

• **Lower construction and lifecycle costs:** DYNAMax is characterized by very high strength and durability, thus significantly increasing the technical service life of buildings. The high durability of DYNAMax minimizes the maintenance and therefore also the lifecycle costs of your construction project. The reduced concrete and steel reinforcement usage, and hence lower transportation, combined with a very high early strength development cuts the total cost of construction.

SLENDER DESIGN AND LARGER SPANS

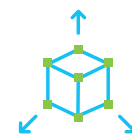


**HIGH
STRENGTH**
C60/75 - C120/135 MPa

**OUTSTANDING
DURABILITY**
max. 750 Coulombs¹

**SUPERIOR
RIGIDITY**
min. 40GPa²

¹ max. 750 Coulombs in Rapid Chloride Penetration Test (RCPT), Rapid Chloride Permeability as per standard CSA A23.2-23C (Note: This Test Method is substantially in agreement with ASTM C1202 so we could do CSA A23.2-23C and ASTM C1202) For further information on the local product range please contact your local HOLCIM RMX Sales team.
² Modulus of Elasticity as per standard ASTM C469



MORE DESIGN FREEDOM AND SPACE

BENEFITS

- Higher stability and longer spans due to very high compressive strengths with superior rigidity due to a high E-Modulus
- More usable space with the same building volume
- Increased number of floors or floor heights with the same building height
- Greater variability in the layout of the floor plan
- High design freedom for more functional and appealing structures
- Slender design with the same or higher load bearing capacity
- Additional space for various utility services



SUSTAINABILITY AND DURABILITY

BENEFITS

- Lower material demand without compromising performance and thus reducing the overall carbon footprint of the building
- Excellent corrosion resistance and outstanding performance of exposed concrete components
- Local production in existing RMX concrete plants
- Reduced transport due to lower concrete volume
- Smaller foundations thanks to lower building dead loads
- Less use of resources and longer service life
- Reduced maintenance costs
- Lower project and construction costs
- Improved earthquake protection



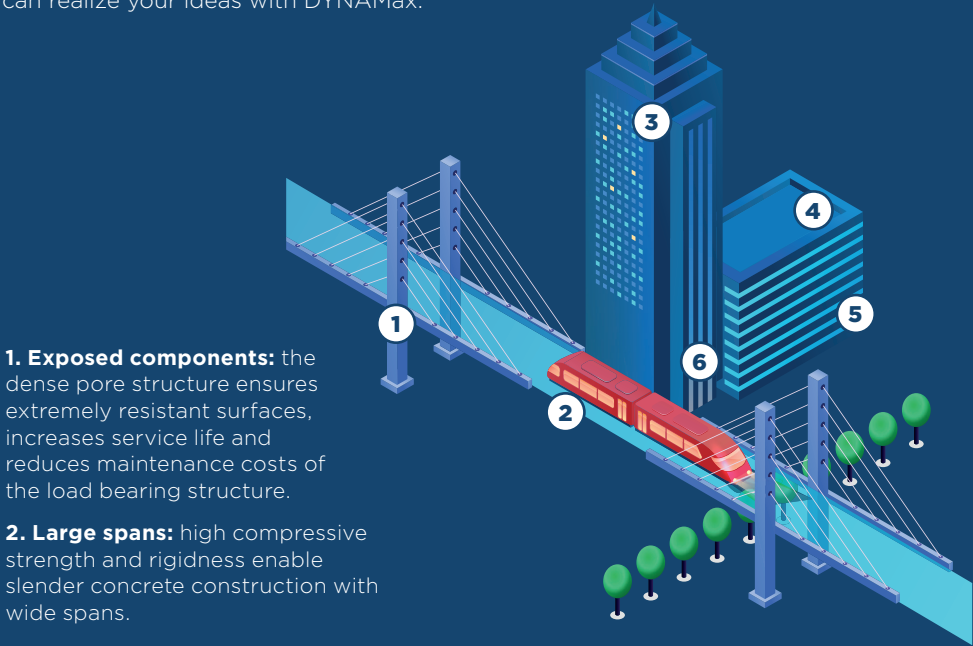
EASE OF PLACEMENT

BENEFITS

- The same working processes as for conventional concrete
- Excellent pumping properties
- High early strength
- Clear separation of load-bearing structure and building utilities through optimized floor construction
- Reinforcement design optimization
- Faster completion of the building
- Faster and more effective construction processes with reduced workforce requirements
- Improved working conditions on the construction site

DYNAMax – THE NEW DIMENSION OF BUILDING WITH CONCRETE

DYNAMax pushes the boundaries of what is possible and gives you access to unrivaled expertise, experience and know-how in concrete. In combination with other products from the Holcim range, it opens up a new world of building with concrete. Let your imagination become reality – our concrete experts across the globe will be happy to show you how you can realize your ideas with DYNAMax.



1. Exposed components: the dense pore structure ensures extremely resistant surfaces, increases service life and reduces maintenance costs of the load bearing structure.

2. Large spans: high compressive strength and rigidity enable slender concrete construction with wide spans.

3. Columns and beams: smaller cross-sections require less valuable space, thus increasing the usable area.







4. Slabs: reduced thickness allowing the separation of the supporting structure and building utilities, thus speeding up the construction process and facilitating later adjustments.

5. Parking garages: slim supporting structures simplify traffic routing, increase the number of parking bays and create more room height.

6. Stairways and elevator shafts: reduced wall thickness increases the usable area.

DYNAMax PRODUCT RANGE

High strength, outstanding durability or superior rigidity – what are the main requirements for your project? The DYNAMax high performance concrete product range has a tailor-made solution ready for any scenario – the choice is yours!

	DYNAMax	DYNAMax ^{XD}	DYNAMax ^{XR}	DYNAMax ^{XRD}
 HIGH STRENGTH				
 OUTSTANDING DURABILITY				
 SUPERIOR RIGIDITY				

LET'S TALK ABOUT YOUR IDEAS

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