Euphoria®

AVRASYA

COMPOSITE BUILDING SYSTEM

COMPANY PRESENTATION

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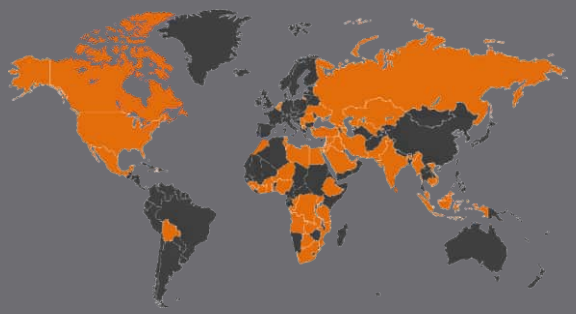

"A professional partner in the construction industry since 2007..."

WHO WE ARE?

Established in 2007, Avrasya has quickly become a leading player in OEM production, trading, contracting, and engineering for various sectors.

Today, our international footprint extends to over 60 countries, reflecting our commitment to excellence and customer satisfaction on a global scale.

AVRASYA – A company that wishes to become your successful partner through our world-class products and customer service.

It is our mission to assist our customers to become winners in their own business field.

COMPOSITE BUILDING SYSTEM

A patented product made from natural, recycled materials.

COMPOSITE BUILDING SYSTEM

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WHAT IS A COMPOSITE BUILDING SYSTEM?

With a composite building system, the foundation and structural frame of a five-story building can be constructed without the use of steel or concrete. Blocks, lintels, and beams made of fiber-reinforced composite materials are easily and rapidly assembled using an interlocking construction system, forming the building’s load-bearing frame.

What differentiates this system from conventional construction technologies is its simplicity, speed, cost efficiency, structural strength, environmental sustainability, lightweight nature, and patented technology.
Simplicity and rapid installation significantly reduce construction time and allow projects to be completed with fewer skilled workers. This enables much faster delivery of residential and commercial developments and accelerates the overall construction process.

Cost efficiency is achieved through reduced labor requirements and lower overhead costs. Compared to traditional construction methods, the system requires less manpower and offers clear economic advantages across all building types.

Structural strength results from both the material composition and the unique interlocking assembly technique. All components within the system exhibit consistent load-bearing performance, and when assembled, they form a monolithic structure. In seismic zones, structural vibrations are evenly distributed throughout the building and efficiently transferred to the foundation.

Environmental sustainability is ensured through the use of natural and recycled materials in the manufacturing process. Lightweight construction minimizes the need for heavy equipment such as cranes and large machinery during transportation and installation.

The system comprises a range of products protected by 10 registered patents.

COMPOSITE BUILDING SYSTEM

HOW IS THE COMPOSITE STRUCTURAL SYSTEM USED?

A reinforced concrete foundation (substructure) is constructed in accordance with the structural design, which is calculated based on the soil classification and the number of floors of the planned building. The first row of walls, designed according to the architectural project, is fixed to the foundation using composite base elements secured individually with anchor bolts.

Following the installation of the base elements, composite wall blocks are assembled while allowing for door and window openings. The wall blocks are installed in an alternating pattern using both an interlocking system and special adhesives, continuing up to the beam bearing level. High-strength composite lintels are installed above all door and window openings.

Composite beams are then fixed to the load-bearing walls at predetermined intervals. To ensure structural rigidity, connecting rods—used throughout the composite system—are also installed within these beams. Finally, a composite floor deck is screwed onto the assembled beams in a perpendicular direction, forming the floor slab.

This construction process is repeated for each subsequent floor, up to a maximum of five stories, depending on the design requirements.

Since heavy materials such as steel and concrete are not used in the superstructure (excluding the foundation), the total structural weight is approximately ten times lighter than that of a conventional reinforced concrete building. As a result, loads transferred to the ground are significantly reduced.

In earthquake-prone regions, rapid delivery of housing is essential to minimize human suffering. In this context, the composite structural system offers a seismically resistant and fast-to-construct solution. All composite structural elements have successfully undergone earthquake, fire, and strength testing, demonstrating their reliability against potential risks.

This composite load-bearing system enables construction across all geographical and climatic conditions. As no concrete is used in the superstructure, construction can continue even in cold winter conditions.

The system can be applied not only to multi-story residential buildings, as demonstrated in the sample project, but also to a wide range of building types, including schools, rural housing, villas, factories, warehouses, and hotels.

COMPOSITE BUILDING SYSTEM

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HOW FAST CAN CONSTRUCTION BE COMPLETED WITH THE COMPOSITE BUILDING SYSTEM?

A five-story building consisting of 20 apartments (4 units per floor) can be assembled in just 10 days by an 8-person team, using composite structural elements. By increasing the number of teams, multiple blocks can be constructed simultaneously.
Thanks to the lightweight materials and the elimination of formwork and scaffolding, construction is safer and faster. (Foundation and infrastructure works are excluded, as they depend on soil conditions and site topography.)

WHAT IS THE STRUCTURAL COST?

Depending on the project, the average structural (shell) cost of a 5-story, 20-unit building is approximately USD 280/m². Finishing costs vary according to material quality and design preferences.

WHERE HAS THE SYSTEM BEEN USED?

The Composite Building System has been successfully implemented in Turkey, Russia, Azerbaijan, Iraq, Nigeria, the Netherlands, the United Kingdom, and the USA, delivering residential, social housing, educational, healthcare, and commercial buildings.

WHO DEVELOPED THE SYSTEM? PRODUCTION CAPACITY

The system was developed through a partnership between Yeşil Holding (Turkey) and Coastal Construction (USA).
Production facilities operate with advanced robotic technologies:
Manisa, Turkey: capacity of 5,000 housing units/year
Florida, USA: capacity of 9,000 housing units/year

CERTIFICATIONS AND APPROVALS IN THE USA

After an 8-year testing process and 440 ANSI-standard tests, the Composite Building System has been approved in all U.S. states. It is officially recognized as the 4th structural construction system, alongside reinforced concrete, steel, and timber.
The system is approved for buildings of up to 5 stories in the USA.

COMPOSITE BUILDING SYSTEM

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We provide a wide range of renewable composite turnkey solutions for various applications, including but not limited to:

Low-, middle-, and high-income housing
Disaster relief and emergency housing
Schools and educational facilities
Office buildings
Industrial and factory buildings
Government and administrative buildings
Restaurants and food service facilities
Warehouses and storage facilities
Retail stores and shopping centers
Police stations and gas stations
Medical and healthcare facilities
Aircraft hangars
Bulletproof guard cabins
Military camps
Farmhouses, forest houses, and village housing
Multi-story buildings
If you want, I can also:

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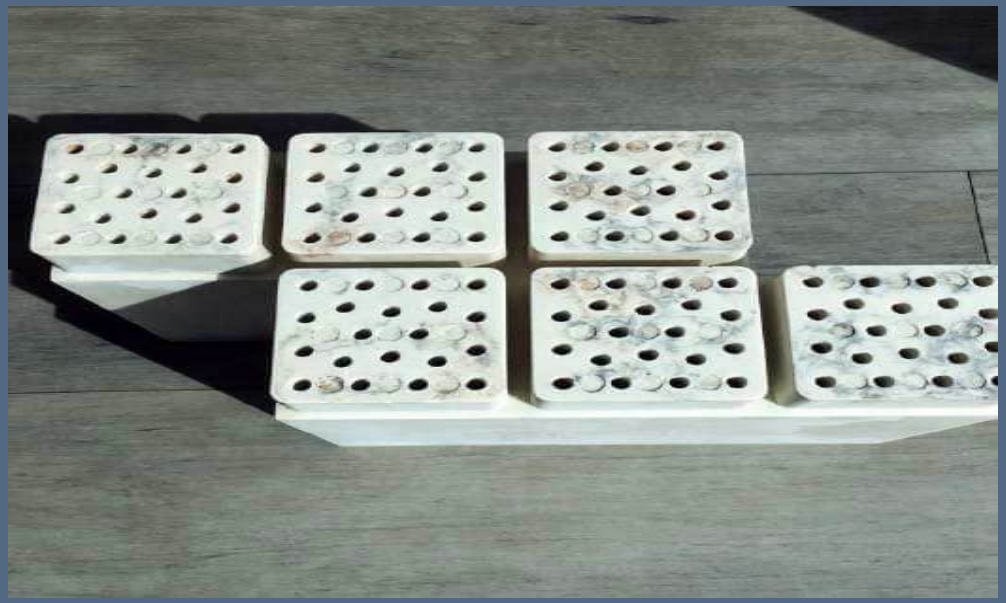

COMPOSITE BUILDING SYSTEM

KEY FEATURES

Cost-effective,,patented, revolutionary products are environmentally friendly and eliminate the need for intensive consumption of natural resources such as timber or raw materials used in concrete production. This enables fast and easy design, development, manufacturing, assembly, and installation of residential and commercial buildings of various types and sizes in a wide range of locations.

Affordable cost
Exceptional design flexibility
Ideal resistance to strong earthquakes
Resistant to tornado and hurricane winds up to 225 km/h
Energy efficient
Creates fully watertight structures
Fire resistant
Immune to termites and unaffected by mold, fungi, algae, water, or osmosis; suitable for flood-prone areas
Fast and easy assembly
Withstands snow loads exceeding 150 kg/m^2
Low maintenance costs
Excellent sound insulation

COMPOSITE BUILDING SYSTEM

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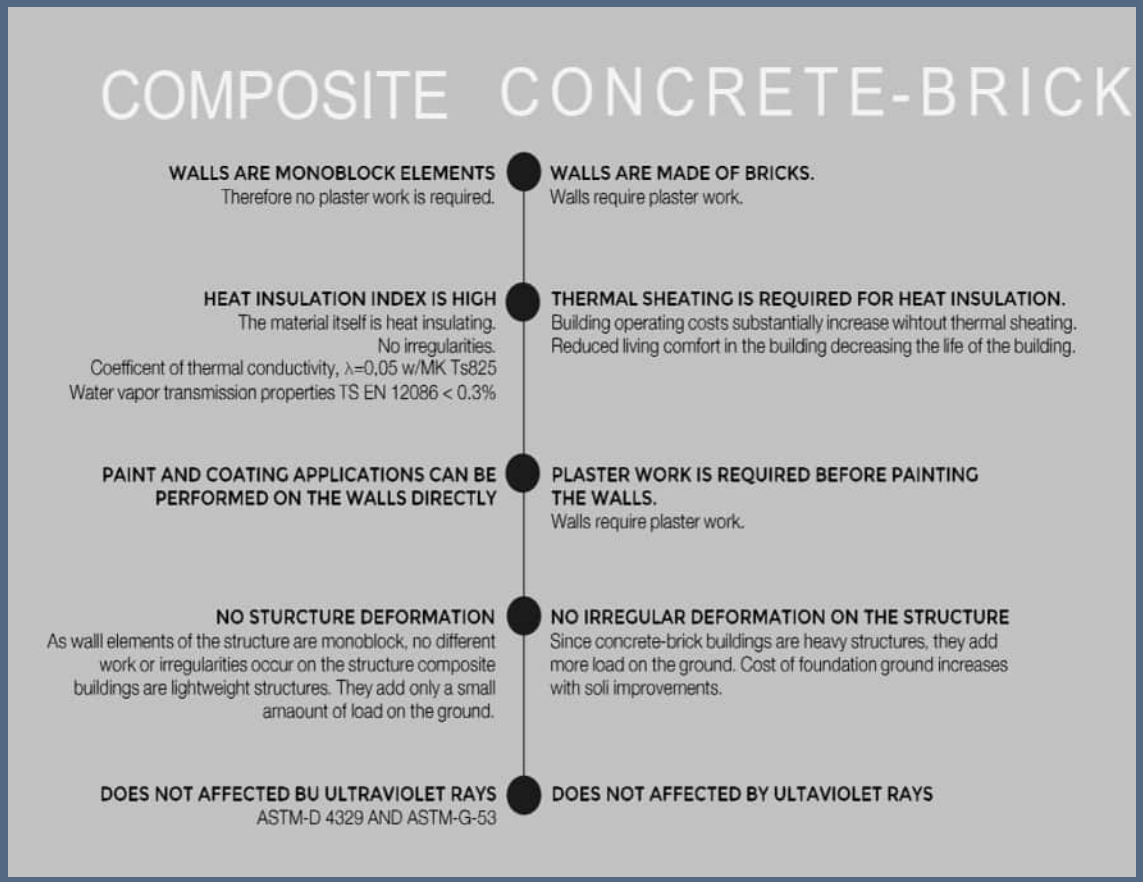
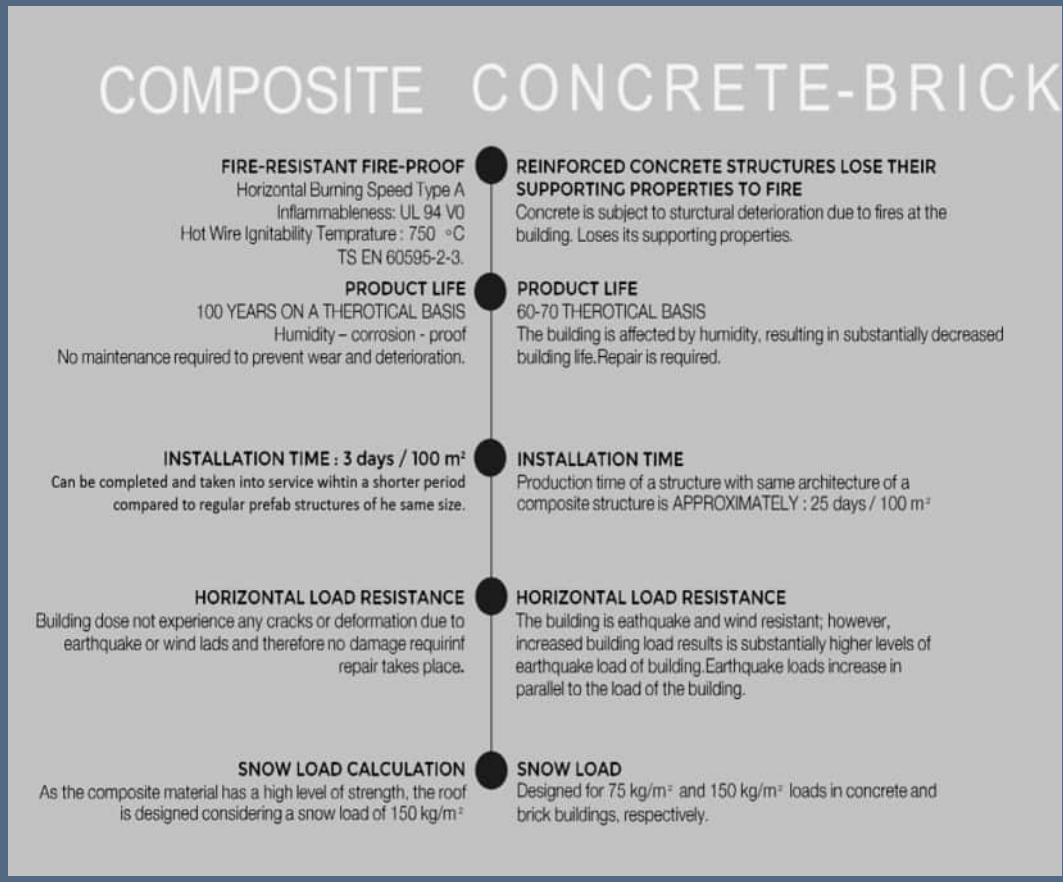
COMPARISON OF COMPOSITE BUILDINGS WITH REINFORCED CONCRETE STRUCTURES





BOTTOM LINE:Composite buildings are lightweight, fast to install, and offer excellent thermal and fire resistance, along with a long service life.In contrast, reinforced concrete and brick structures require longer construction times, place higher loads on foundations, and need additional thermal insulation, resulting in higher overall costs and longer project timelines.

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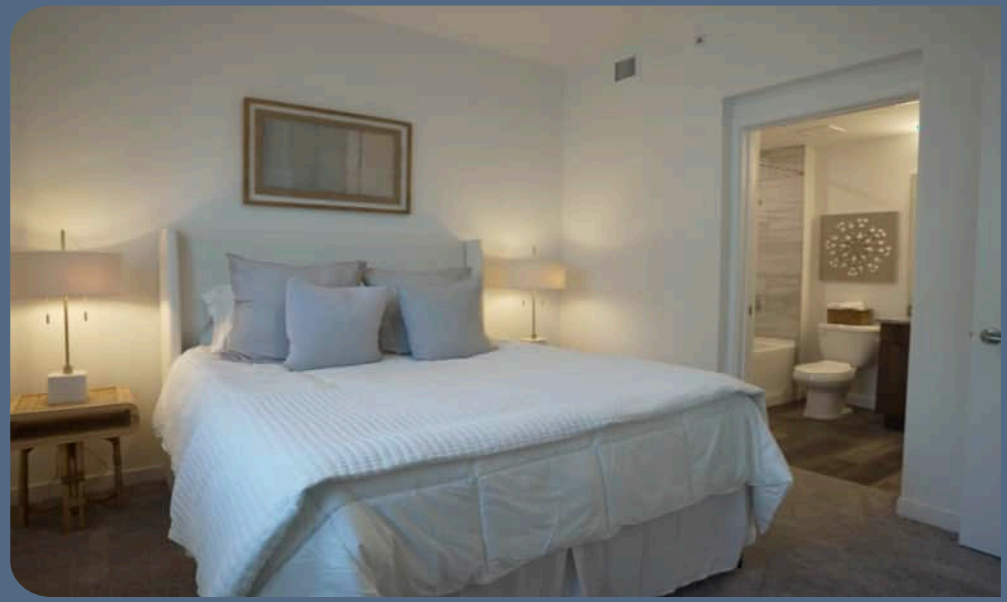

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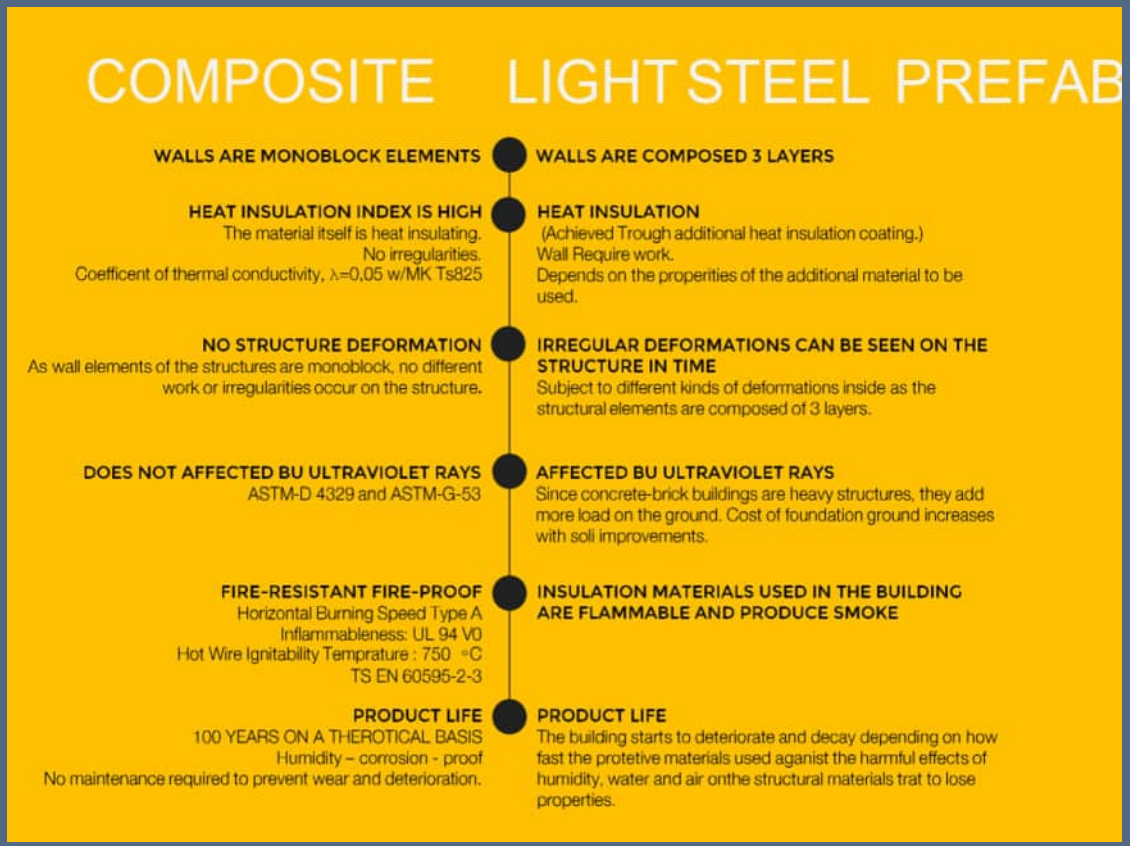
COMPARISON OF COMPOSITE BUILDINGS AND PREFABRICATED STEEL STRUCTURES



CONCLUSION

Composite buildings provide superior durability, enhanced thermal and fire performance, excellent acoustic comfort, and significantly faster construction compared to traditional prefabricated buildings. As a result, they represent a more efficient, reliable, and cost-effective solution for long-term use.

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SOCIAL & GOVERNMENT STRUCTURES

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WAREHOUSES


INDUSTRIAL STRUCTURES


INDUSTRIAL STRUCTURES


INDUSTRIAL STRUCTURES

MANUFACTURING ENTERPRISES

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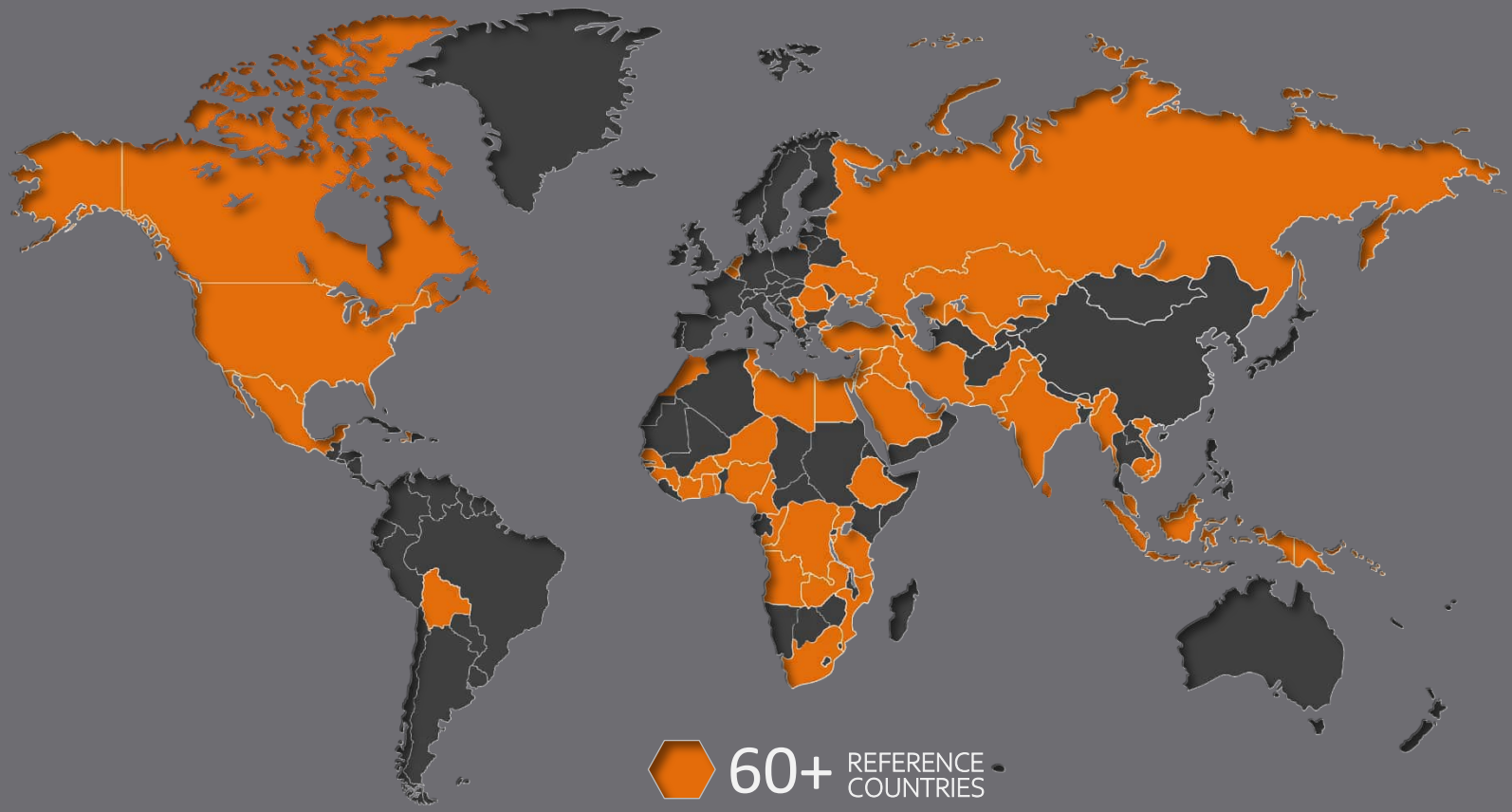

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