DUCON



# Ultimate Performance
# DUCON Security

## Concrete with flexibility and stability

**Properties**

Thanks to its exceptional material properties (high ductility and energy absorption combined with high load-bearing capacity and strength), DUCON Security enables an effective increase in the protection of vulnerable infrastructure against violent incidents (terrorism, explosions, natural disasters) even with thin components.
In the field of explosion and impact protection, DUCON has at least four times the performance of standard reinforced concrete with the same component thickness.

**DUCON®**

= DUctile CONcrete, UHPC with 3D micro-reinforcement (MicroMat®)
= innovative concrete technology with a large spectrum of applications (international patents and trademarks)

**Applications**

**Spectrum of applications:** critical infrastructure, embassies, high-security data centers, community centers, chemical plants, nuclear power plants, high-rise buildings and bridges
**Protective measures:** Fabrication and delivery of components as precast elements or cast-in-place solutions by DUCON Europe or certified partners
**Protection against:** Explosions, fragment projectiles, ballistics, forced entry, high velocity impact, earthquakes, gas explosions (chemical industry), vehicle bombs, cantact charges

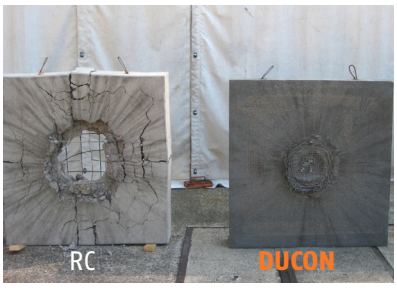
**References**

World Trade Center (NYC), German embassies, European Central Bank, nuclear power plants



**Benefits of DUCON Security**

- High protection level
- High energy absorption
- No fragment projectiles
- Slim design
- At least four times the performance of regular concrete
- Free optical design flexibility




**Technical data**

- Compressive strength: 100-200 N/mm²
- Flexural strength: 25-75 N/mm²
- Ductility factor > 6
- Bullet resistance: PM9 at 80 mm, PM14 at 150 mm
- Forced entry resistance: RC 6 at 75mm



**Applications**

- Blast walls
- Security facades
- Protective ceilings
- Spall plates
- Protective containers
- Ammunition storage containers

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