IBIPC
INSTITUTE OF BLAST & IMPACT PROOF CONCRETE
MADE TO SAVE YOU

POSSIBILITIES OF USE THE PATENTED UHPFRC. REASONS FOR BUYING A FRANCHISE.

1. SECURITY FEATURES FOR DEFENCE, CRITICAL AND CIVIL INFRASTRUCTURE

2. EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE (EU) 2022/2557 OF 14 DECEMBER 2022 ON THE RESILIENCE OF CRITICAL ACTORS

3. CONSTRUCTION AND CIVIL ENGINEERING

AD. 1. SAFETY ELEMENTS

- Gaining a unique know-how to start production and delivery of a comprehensive range of security components certified according to NATO STANAG 2280:2016 standard for ballistic, blast and shrapnel resistance for defence, critical and civil infrastructure under a franchise agreement - licence.
- FRANCHISE LICENSE only for selected territory or MASTER FRANCHISE AGREEMENT for neighboring countries with the right to sell to third parties.
- https://www.ibipc.com/en/download-2/

AD. 2. EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE (EU) 2022/2557

- Addresses critical entities providing critical services.
- Defines resiliency / resilience of critical assets to all types of threats (uniform rules across the EU).
- Critical entities will be monitored on their compliance with the Resilience Plan based on a risk assessment that is updated periodically or as required.
- Critical entities will strengthen their capabilities to prevent, protect themselves, respond to and withstand incidents, mitigate, absorb, adapt and recover from the consequences.
- Possible support from the State or the EU.
- EU accession. Preparing a country to join the EU is a complex process that usually takes several years. Once a candidate country has fulfilled the conditions for membership, it has to implement EU rules in its legal system, in all areas, i.e., including this Directive.
- https://eur-lex.europa.eu/eli/dir/2022/2557/oj

AD. 3. CONSTRUCTION

- The high amount of wires brings a high ductility of the concrete, i.e., dimensional stability. Ordinary concrete has none and cracks straight away, with wires it does not. It's like turning glass into rubber. That's why it can withstand all impacts and punctures.
- Reinforcement of existing structures with a thin layer, can be used on bridges, see currently the Barrandov Bridge.
- UHPFRC is watertight, protecting the original bridge against frost and winter salts; the above will protect the substructure, raise the load capacity and extend the life.

- Advantage on coastal structures, versus conventional concrete, it does not soak up water, does not mind salt water or frost. For pier construction, harbour repairs, etc. UHPFRC lasts about 5 to 8 times longer than existing concrete.
- UHPFRC is also good for securing vaults, and the STATE PRINTING WORKS OF SECURITIES, state enterprise, is very interested in the country; the concrete cannot be shot, and drilling is extremely slow. The author of the patent, doc. Josef Fládr states with exaggeration that *"...before the thief drills through to the other side, he dies of old age"*

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- Production of sewer pipes; we do not know the legislation outside the EU, but it is a given in the Czech Republic. All large sewer pipes on the backbone networks are made of concrete, as stoneware is much more expensive. However, concrete is an alkaline material and does not like acidic sewage. According to the European standard, all pipes must be lined with basalt paving, which makes production more expensive and slower. However, if the manufacturer makes the pipe from UHPFRC, which has basalt aggregate and a dense cement paste, then it can withstand the required chemical environment and there is no need to glue additional tiles. There is no need to check the position of the pipes on site (the tiling is usually only half done and each pipe needs to be watched on site to ensure that it is not laid backwards, which is difficult to see with round pipes and therefore happens frequently). However, the cladding lobby has ensured that EU legislation has changed and now we have 'pipe plus basalt cladding' written firmly on the wall and there is no other way. If non-EU countries can do it, that's the way to go.