

April 2019

AGM and Dinner Dance is on the 6th July 2019, at the Wiltshire Hotel, Vastern, Royal Wootton Bassett, Wiltshire. SN4 7PB.



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Fees are due, I draw your attention under the Rule 3 (C) and (D) Fees were due 1st January and to be paid in full by the 31st March 2019 any member who has not paid by that Date is under suspension. Some members were Expelled in January for not paying their 2018 fees.

Cheshire

Structural panel factory opens on the Wirral. Housing developer Project Etopia and panel manufacturer Istidama have opened a new 50,000 sq. ft factory in Ellesmere Port,



Cheshire to make structurally insulated panels. The factory produces the proprietary 4Wall panelised construction system and has capacity to make kits for five three-bedroom homes every day. Istidama, previously called Ecomech Structurally Insulated Panels, is run by Christopher Moss, who invented the 4Wall panel system and patented it in 2015. When asked, Chris Moss was not prepared to discuss the benefits or attributes of his system but the patent abstract is *freely available online*.

Project Etopia is owned by 26-year-old Joseph Daniels, with backing from hedge fund speculator Lord (Stanley) Fink. Joseph Daniels joined the board of Istidama in November 2018. Despite his young age, he is already a director of more than two dozen companies.

Concrete

Why does concrete crack? Part 1 - The main reasons

Concrete is the most common building material around the world. Since the invention of modern cement by Louis Vicat in 1817, research and development efforts have improved its properties: applications have been improved, mechanical strength and chemical resistance have been increased and new materials such as pre-stressed concrete have been developed. Has concrete become perfect over the years? Looking carefully at the many concrete structures that surround us, even including the most recent buildings, we see that not one of these structures is perfectly intact. This highlights the unavoidable weakness of concrete: its tendency to crack. Cracking is exacerbated by the factor which made concrete so popular: its compatibility with steel, and the ability of reinforced concrete to meet the requirements for an advanced building material. However, are cracks all the same? Certainly not! In fact, cracks can be caused by several different factors such as deformation,

hydraulic shrinkage, thermal shrinkage or swelling. The main differences are explained below. Cracks caused by deformation The forces applied to the structure, tensile, compressive or shear forces to the concrete. These forces generate deformation, which can lead to cracking. The location and geometry of the crack on the structure is often characteristic; the cause can then be identified by observing the cracks.

- Cracks due to compression are parallel to the applied force.
- Tensile cracks are perpendicular to the applied force.
- Shear cracks are perpendicular to the tensile stress.

The tensile strength of concrete is only about one 10th of its compressive strength, which is why concrete is almost never used without reinforcement. The most widely used type of reinforcement is the incorporation of steel reinforcement bars in areas exposed to tensile stress. This type of concrete is commonly referred to as "reinforced concrete". Other types of reinforcement may include synthetic fibers. Deformation cracks are mainly caused by soil settlement or loads which are too high for the structure. Cracks caused by hydraulic shrinkage A piece of concrete in the open air usually shrinks during hardening. This shrinkage is due to the evaporation of part of the water contained in the concrete. Cracking occurs when shrinkage forces become greater than the strength of the concrete. This can be seen as a race against time between two phenomena: the evaporation of water and the increase in the strength of concrete. This is also true for concrete parts that cannot deform. In the case of shrinkage, deformation cannot occur. These conditions create internal stress, which lead to cracking, when the stress exceeds the strength of the concrete. It should be said that any concrete structure which is immersed or located in an atmosphere saturated with moisture has very low dimensional variation. Cracking can take place before the concrete has set. This is not purely as a result of hydraulic shrinkage, but rather of a shrinkage due to evaporation of a part of the water or due to absorption of the support. This phenomenon mainly affects pavements cast in hot and dry weather, or concrete laid in cold weather in heated rooms or on a porous support. Cracks occur in specific areas such as concrete joints and in the vicinity of reinforcements. Part 2 next month

Limitation is a legal concept which determines how long a party must bring a claim before the defendant can defeat the claim by pleading lapse of time.

Last year the government accepted proposals to change the law and the Ministry of justice is preparing a new consultation, due to be published later this year.

So what are the likely changes to the limitation rules? The vast majority of construction claims are for breach of contract or in the tort of negligence. The similarities between the existing regime for latent defects and the proposals are unmistakable.

The concept of the 'date of knowledge' is fundamental to the proposals and is examined in more detail.

The proposals define the date of knowledge as the date on which the claimant knows or ought reasonably to have known:

1. The facts that give rise to the cause of action.
 2. The identity of the defendant: and
 1. That the injury, loss or damage sustained by the claimant of the benefit received by the defendant was significant. When will injury, loss, damage or benefit be considered to be significant? The suggested definition under the new proposals is
 2. When the claimant knows the full extent of the injury, loss, damage or benefit: or
 3. If a reasonable person would consider it worth bringing a claim against a defendant who does not dispute liability and who has the means to satisfy a judgment.
- Knowledge for the purpose of the proposals include both the concept of the 'date of knowledge' is fundamental to the proposals

Law

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