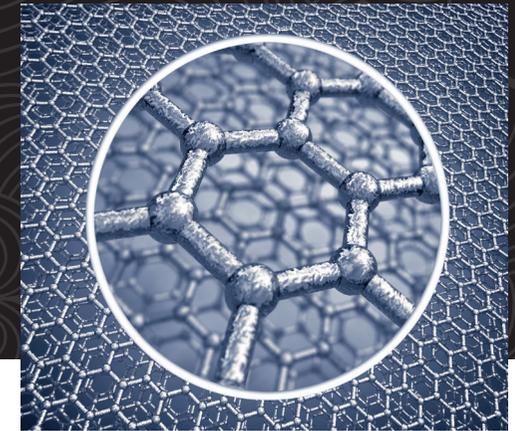




Insight

Allianz Coffee Guide to: Graphene

Broking business is busier than ever, and staying on top of the latest insurance and risk management buzzwords can sometimes fall by the wayside. So, harking back to the coffee shop origins of insurance, Allianz is offering a series of short and snappy insights that pull on our expertise. A perfect way to catch up on what's hot!



On this week's agenda: Graphene. We hope the following comes in handy next time you're awaiting a cappuccino in your local coffee house and a fellow coffee customer turns to you and says...

Coffee Customer: Graphene. Have you heard about the 'miracle material'?

You: A million times thinner than a human hair but 200 times stronger than steel, Graphene is certainly a unique material! Despite only being isolated in a lab in Manchester just over a decade ago, it's the world's first 2D material. This makes it incredibly light, tough and flexible. Not only this, it's also a brilliant conductor of electricity and a protective barrier with even helium – the smallest element – unable to pass through it.

Coffee Customer: Wow. It must have widespread applications then?

You: Many! It can be used to improve the properties of existing materials and used on its own. From membranes, sensors and electronics to biomedicine, energy and composites, the industrial applications for a whole range of industries is huge.

Coffee Customer: Ok, tell me more...

You: The first commercial product, a lightbulb, hit the shelves in the UK last year. It uses less energy, has lower manufacturing costs and has more sustainable components than a regular bulb. Graphene is also set to transform battery life and durability of mobile technology, and revolutionise treatment of medical conditions such as Parkinson's and Cancer. All of these uses have potential insurance implications such as product liability and property covers.

Coffee Customer: Talking of insurance, surely there are risks?

You: Asbestos was once heralded as a wonder material and used extensively with the long-term latent consequences unknown. With that in mind, some studies suggest that Graphene may have dangerous side effects if it enters the human body and so, the insurance implications of misunderstanding this material are only too real. With the potential to disrupt and revolutionise, the future of Graphene and its possible widespread use will inherently impact the insurance industry, making it an exciting development to watch.

At this point, your drink will be served and you can smile modestly knowing that your coffee catch up went well.

Insurance implications at a glance:

- Graphene's unique properties may have uses in risk management products and therefore help mitigate hazards.
- If Graphene is used in construction, say for smart windows, property rebuild costs may be higher alongside other underwriting considerations.
- Unknown toxicity and dispersion in air and water could negatively affect health and the environment.
- Potential latent liability, business interruption, medical exposure and product recall implications.