

On 6th April, 2021 we had a detailed talk by Dr Diana Leitch MBE: “**The Story of Pyrex**”, 100 Years of a Borosilicate Glass that revolutionised both domestic life and scientific work.

Pyrex is a low-thermal expansion borosilicate glass which is familiar to many for its use in clear glass kitchen ware. Pyrex is a very common piece of kitchenware found in most kitchens where it is a piece of the scenery that usually is not given a second thought. It was first used in 1915 as a pie plate. It was robust and shock resistant. In the 1960s coffee jugs were a popular use of the glass.

Borosilicate glass is a type of glass with silica and boron trioxide as the main glass-forming constituents. Borosilicate glasses are known for having very low coefficients of thermal expansion making them more resistant to thermal shock than any other common glass. Such glass is subjected to less thermal stress and can withstand temperature differentials without fracturing of about 165 °C (297 °F). It is commonly used for the construction of reagent bottles and flasks as well as lighting, electronics and cookware. It was first marketed by Corning Inc. in the USA and has had a complicated ownership since then; the business now operates as International Cookware.

There was a good question and answer section with several members showing some Pyrex from their kitchens, some of which is rare, which delighted them! Diana scours charity shops looking for rarities!

I asked about military uses in World War 2, such as bullet proof glass and submarine periscopes, but she had just studied civilian uses. She said it had been used for scientific glass, plus windows for the Mercury spacecraft, and you cannot get more extremes temperatures than that!

Mike Thompson

Diana Leitch was awarded an MBE for services to chemistry in the Queen's Birthday Honours List in 2014. She is currently the Chair of Trustees of the Catalyst Science Discovery Centre in Widnes. She gave us a talk on “The History and Science of Prosthetic Limbs” in our 2018-19 season. She is obviously a very able lady with several interests.