

Hoop Stress (MPa)  
16  
14  
12  
11  
8  
6  
4  
2

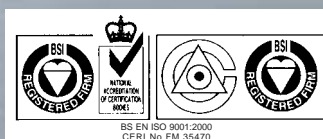
 **TT electronics**  
**AEI Compounds Limited**

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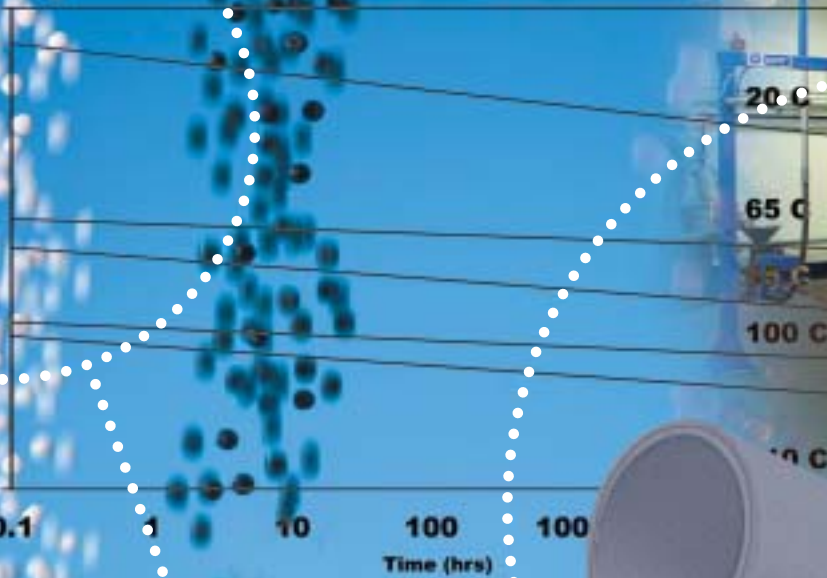
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A subsidiary of TT electronics plc



HYDROSTATIC PRESSURE REGRESSION ANALYSIS for SX 720



# Compounds for PEXb Pipe and fittings



A subsidiary of TT electronics plc



**AEI Compounds Limited**

# Technical solutions for hot water systems

## The Background

AEI Compounds designs and manufactures a range of speciality polymer compound materials. We are a subsidiary of the successful global electronics group TT electronics plc, who are listed on the London stock exchange and have factories and technical sales operations in 18 countries around the world.

With more than a quarter of a century of compound formulation and manufacturing experience behind us, AEI Compounds can truly claim to be a world leader, with our range of products for hot water pipe and fittings, cables, heatshrink, injection moulding and high performance, halogen free fire retardant materials.



## PEXb Pipe Compounds - a speciality

Recent years have seen trends change away from copper as the material of choice for hot and cold-water pressure pipes, towards newer easy to use plastic materials. AEI Compounds have developed a range of PEXb, silane crosslinkable polyethylenes for such applications. The pipe extrusion process used for PEXb is similar to that for thermoplastic polyethylene, giving high production line speeds at minimum capital investment.

Crosslinking of extruded pipe is conducted post extrusion in a steam/sauna atmosphere.

Where oxygen barrier properties are required, multilayer pipes are produced using AEI's PEXb compounds.

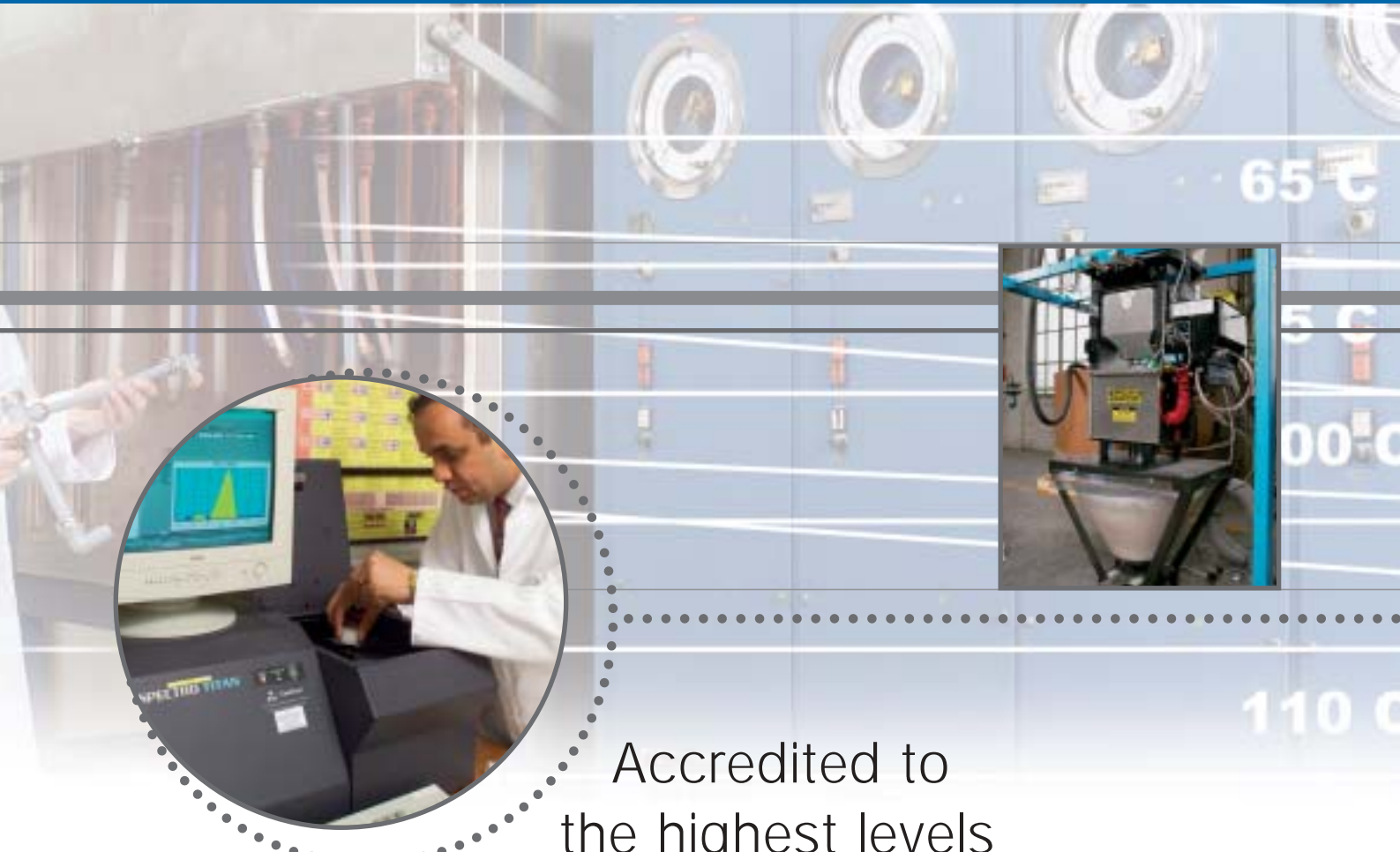
## PEXb Injection Moulding Compounds

AEI Compounds has also developed a PEXb injection mouldable grade SX703:CM488/6, which is used extensively for the moulding of fittings both screw fit and push fit. The compound is easy to process using standard thermoplastic injection moulding and processing conditions.

Based on performance and cost benefits PEXb fittings have replaced expensive engineering materials. Thus, it is now possible to supply a complete PEXb system.

## Easy Installation

Using these new materials, installers benefit from a pipe that is easy to work with while also having excellent strength, environmental stress crack resistance and outstanding internal pressure resistance both at ambient and elevated temperatures. Pipes produced from our compounds can be used for radiant heating applications, either as single layer, or as multi-layer in the form of 3 or 5-layer barrier pipe.



## Accredited to the highest levels

AEI Compounds PEXb grades are approved to a wide range of national and international standards. Our PEXb Compound ref SX734:CM488, now has full NSF listing for Chlorine Resistance to Protocol P171, meeting the requirements of both categories, Traditional Domestic (T) and Domestic Continuous Re-Circulation (R). This adds to the already existing listing for this product against the USA's rigorous NSF/ANSI standards 61 and 14.

Our grade SX720: CM488 has been approved for most European specifications including BS7291 Class S and DIN 16892 and also approved for contact with potable water according to the requirements of WRAS and DVGW. In addition, the product is listed against NSF standards 14 and 61.

Our grade 704:CM488 is suitable for applications where greater flexibility is required. It has been approved for various European specifications including DIN 16892 and also approved for contact with potable water according to the requirements of WRAS and DVGW.

## Used around the globe

Globally AEI Compounds PEXb pipe materials are ever increasing in popularity. We are especially delighted that what started out as a product on the shelves of DIY (Do It Yourself) stores, has now been accepted by developers constructing new buildings.



## Products that are right up to date

Using our extensive research and development facilities at our Gravesend headquarters, our team of material technologists are able to ensure that AEI Compounds continue to be at the forefront of the latest technology, as well as complying with all relevant national and international standards and specifications. Furthermore we benefit from all the experience and support that comes from being a member of a major international group such as TT electronics.