**PRESS RELEASE**

**SKZ Expands Testing Capacity with New High-Pressure Autoclaves**

20 units are now available at SKZ's accredited geosynthetics testing laboratory

**Würzburg, July 5, 2023 - Nowadays, manufacturers rely on high-quality geosynthetics that are used for many decades. The German Plastics Center (SKZ) is responding to the growing demand for a qualitative estimate of the service life of geosynthetics by expanding its testing capacity by another six to a total of 20 systems for high-pressure autoclave testing (HPAT).**

The great advantage of high-pressure autoclave testing compared to conventional aging in a heating furnace is the shorter test duration. While comparable tests in a heating furnace require several years, the autoclave method provides an estimate of the service life in weeks or months. This additionally reduces the energy input and the costs for testing. At SKZ, a total of 20 high-pressure autoclaves in various sizes are available for customer-specific and time-oriented testing and more will be installed soon. Due to the abundance of testing possibilities and the many years of expertise, SKZ is one of the leading testing laboratories for the service life estimation of geosynthetics by accelerated thermo-oxidative aging.

The institute's test laboratory has been offering accelerated thermo-oxidative aging of geosynthetics – mainly made of polyolefins – in a high-pressure autoclave as a service for nearly two decades. In this process, geosynthetic such as geotextiles and geomembranes or plastic drainage pipes are exposed to an aqueous medium, elevated temperature and a multiple of the oxygen partial pressure of the atmosphere in a pressure vessel. By examining quality-determining properties, such as tensile properties or oxidation-induction time, a model is created for estimating service life. From this, the SKZ experts calculate the service life for various applications. For example, underground cable protection pipes for power lines for renewable energies are designed for at least 50 years at 70 °C continuous temperature.

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**Caption**: Equipment for SKZ's high-pressure autoclave test for estimating the service life of geosynthetics (Photo: Luca Hoffmannbeck, SKZ).