

Service Life of Sealing Systems

Service Life vs. Shelf Life

The shelf life, or storage time, provides information on the maximum length of time that a gasket material may be stored before it is installed (cf. FlatSeal™ Guide 8). The service life of a sealing system describes the time during which a sealing system is expected to perform its proper function.

Service Life of Flat Gasket Sealing Systems

The service life of a sealing system depends on several parameters. The most important ones are:

- The media to be sealed and the chemical resistance of the sealing material against this media
- Temperature of the application
- Pressure in the application
- Correct design of the sealing system with regards to seal geometry, number and size of bolts, bolt material and bolt lubrication with the corresponding tightening torque
- Level of surface pressure during installation and operation, which depends significantly on the correct installation of the previously designed sealing joint

In principle, the service life of a sealing system is not limited, but is decided by the boundary conditions given above and the intended use. Information on service life is available based on more than 30 years of experience with FlatSeal™ products in application.

Further Information

Other FlatSeal™ Guides deal with the following basic topics:

- FlatSeal™ Guide 1 – Fundamentals of Flat Gasket Technology
- FlatSeal™ Guide 2 – Choice of Sealing Material
- FlatSeal™ Guide 3 – Installation Instructions
- FlatSeal™ Guide 4 – Optimized Gasket Geometry
- FlatSeal™ Guide 5 – Lubrication of Bolts
- FlatSeal™ Guide 6 – Roughness of Sealing Surfaces
- FlatSeal™ Guide 7 – Service Life of Sealing Systems
- FlatSeal™ Guide 8 – Shelf Life of Sealing Materials
- FlatSeal™ Guide 9 – Tolerances Cut Parts
- FlatSeal™ Guide 10 – Temperature Test

