



Solder Spheres – Shelf Life



Storage | Handling and Shelf Life

As stated on [EasySpheres Data Sheet Rev6-2021](#), *“shelf life for standard customers is 1 year from date of purchase. Refrigeration is not recommended and does not extend shelf life. The container should remain unopened and not agitated when stored. Normal fluctuations in room temperature will not affect shelf life. Avoid contamination of spheres from contact with foreign objects such as fingers or moisture.”* A [standard customer](#) is one in which EasySpheres has not vetted the customers storage conditions.

EasySpheres Rationale

Solder suppliers have no control how their products are handled once they leave the factory. EasySpheres inventories all product in “controlled environment” with extra attention devoted to shelf storage in jars that contain their own desiccant moisture barrier inserts. In consideration of this, our spheres are shipped to a wide variety of locations and climates including humid areas and locations near salt water. With this knowledge, we cannot assume that our customers store our products in ideal environments, hence, the solder manufacturer has to protect the customer against product runs involving old and oxidized product. EasySpheres warrants our product to be viable at time of use for 2 years to acknowledge these variable storage conditions. Under certain circumstances where we understand the customers storage environment is controlled for moisture and oxidation, we will warrant our product for 2 years shelf life from date of manufacture.

EasySpheres Policy on shelf life

EasySpheres approaches the assignment of shelf life in a manner which is consistent to industry protocols to warrant viable product at time of use. We believe that the potential primary failure mode of our product in relation to time is that of oxidation and moisture.

Moisture

Moisture for the most part is controlled by EasySpheres within the jar through a desiccant barrier placed in the jar which has been shown to perform satisfactorily in most “sealed clean, dry environments”

Oxidation

Standard Solder alloys that are present in our spheres will oxidize over time and at different rates depending on our customers storage conditions which we ultimately cannot control. It is for this reason that we state (as well as our competitors) a conservative shelf life of 1 year for our products. We extend our shelf life standard to two years when we can ascertain that our end customers are committed to storing our product in dry component storage, nitrogen inerted cabinets, which both exclude oxygen and moisture. In almost all instances, the viable working life of our product is far beyond this stated shelf life (perhaps a few to several years), yet in order to guarantee a fully acceptable, process stable, non-oxidized solder ball reflow, we accept that one year would offer the best claim to represent our product properly to [standard customers](#).