



Shelf Life, Floor Life and Storage Conditions of Connectors

The "Shelf Life" of a connector in general describes the length of time it may be stored without deterioration. Just like other products or materials, electromechanical components are subject to deterioration that may limit the usability respectively its solderability.

The "Floor Life" as opposed to that describes the time period moisture sensitive components (MSL acc. to IPC/JEDEC J-STD-020) are allowed to be exposed to ambient temperature and humidity prior to board mounting.

Besides moisture sensitive plastic materials, tin plated components do have a limited shelf life. Tin plating is cost effective and allows excellent solderability. The solderability though, degrades over time. The severity and rate of the degradation depends on both, the storage conditions and on the plating itself.

The standard IPC/JEDEC J-STD-033 requires a minimum shelf life capability of 12 months, however it does not define a period from which on the components should be re-examined.

Shelf life limitations:

- 36 months for connectors with tin plated terminals for through-hole soldering and press-fit assembly
- 24 months for connectors with tin plated SMT terminals for reflow soldering assembly

Gold plating on the entire contact is less crucial towards shelf life as Gold resists oxidation better than tin. Therefore, Gold plated contacts have a longer shelf life.

Storage and transport conditions of ERNI connectors are according to IEC 60721-3-1. In this standard the environmental parameters for the storage of components are specified, e.g. humidity, temperature etc. ERNI connectors are classified for class 1K6.

Kind Regards,
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