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**Subject: Shelf Life Statement**

Non-hermetic [1] electronic packaged devices require appropriate handling to ensure optimum board mounting performances. Next to the soldering process [2], moisture loading and shelf life are important characteristic to be controlled.

Melexis devices are qualified, against either MSL1 or MSL3 moisture sensitivity level as per J-STD-020.

Shelf life of MSL1 and MSL3 devices is limited by the solderability of the lead's plating. Melexis recommends soldering of its devices up to 4 years after the assembly date code. [3]

Additionally, shelf life of MSL3 devices is limited by the hermeticity of dry lock. Dry pack hermiticity can be verified through the humidity card included into the reels. Silica gel is included to absorb any residual moisture.

MSL1			MSL3		
Shelf life			Shelf life		
<4years post date code		>4years post date code	<4years post date code		>4years post date code
Dry Pack Condition	Compliant	Solderability check to be conducted prior board mounting	HIC OK (Blue)	Compliant	Solderability check to be conducted prior board mounting
			HIC NOK (Pink)	Re-bake component as per JEDEC-033	Re-bake component as per JEDEC-033 Solderability check to be conducted prior board mounting

Some of our DFN/QFN devices have a wettable flank feature [4], which aims on protecting the exposed copper against aggressive environment and on facilitating the solder joint inspection. Should the wettable flank feature be used, Melexis recommends soldering of its devices up to 2 years after the assembly date code depending on actual storage temp., applied solder paste thickness and post-reflow AOI acceptance criteria.

[1] Valid for plastic encapsulated electronic

[2] Melexis' Soldering Recommendations: <https://www.melexis.com/en/quality-environment/soldering>

[3] Note that storage period can be extended through adequate solderability tests

- General guideline about Handling of Moisture Sensitive Devices, please refer to J-STD-033.
- General guideline about Long-Term storage, please refer to JEP-160.

[4] Please refer to the datasheet and/or PPAP package when applicable

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