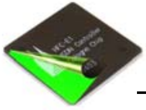
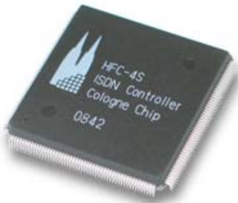


Packaging Regulations for Cologne Chip Products

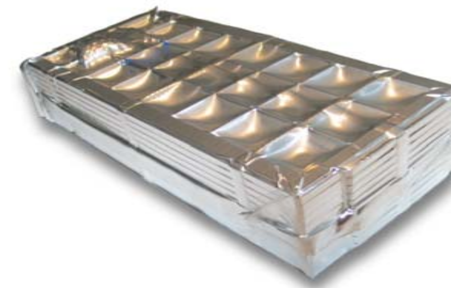
The following regulations are valid for these products:

HFC-4S
HFC-8S



The chips are packed on trays.
Each tray carries 24 chips.

10 trays are inside a vacuum pack.



Due to quality reasons it is recommended to open vacuum packs only a little while before soldering.

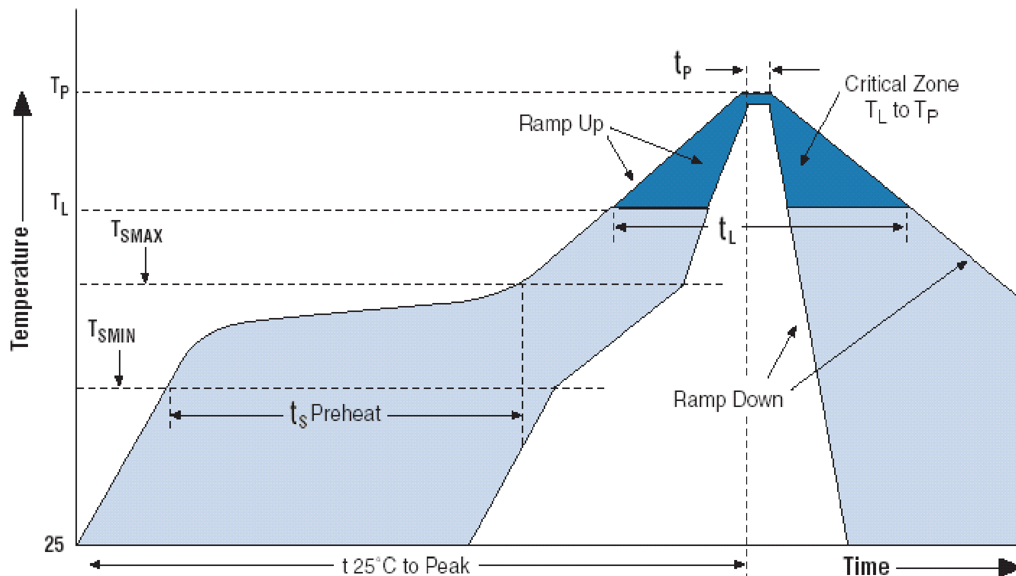
To avoid rebaking of chips, only multiples of 240 pcs. (= entire vacuum packs) should be ordered.

Each vacuum pack is put into a small box. This box is 1 lot (10 trays = 240 pcs. of chips).

Weight: 2.4 kg
Dimensions: 36 cm x 16 cm x 9 cm

Soldering Reflow

Profile Feature	Sn-Pb eutectic assembly	Pb-free assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.	3°C/second max.
Preheat - Temperature Min (T_{SMIN}) - Temperature Max (T_{SMAX}) - Time (min to max) (t_S)	 100°C 150°C 60-120 seconds	 150°C 200°C 60-180 seconds
T_{SMAX} to T_L – Ramp-up Rate		3°C/second max
Time maintained above: - Temperature (T_L) - Time (t_L)	 183°C 60-150 seconds	 **217**°C 60-150 seconds
Peak Temperature (T_P)	225 +0/-5°C	**245** +0/-5°C
Time within 5°C of actual Peak Temperature (t_P)	10-30 seconds	20-40 seconds
Ramp-down Rate	6°C/second max.	6°C/second max.
Time 25°C to Peak Temperature	6 minutes max.	8 minutes max.

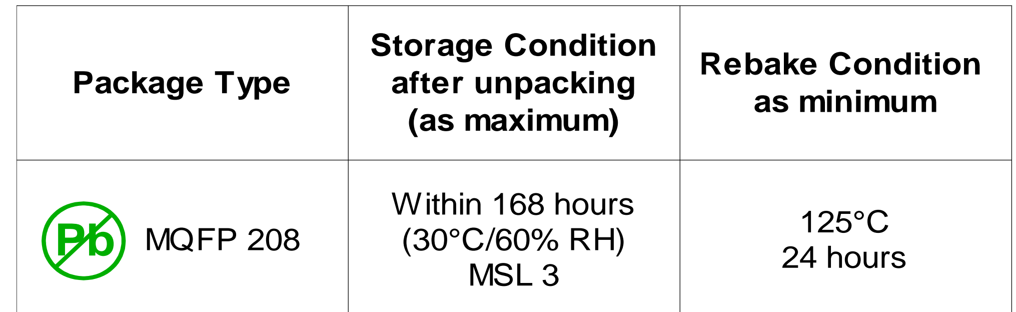


The recommended profiles for soldering reflow of HFC-4S / HFC-8S for **Sn-Pb eutectic** as well as **Pb-free assembly** mainly correspond to the commonly applied JEDEC Standard **JSTD-020C**. The table and graph above illustrate the respective soldering reflow. For more information also refer to Cologne Chip's product change notification of HFC-4S / HFC-8S at www.colognechip.com

NOTE: Week codes on HFC-4S / HFC-8S dated later than 2004-19 reveal RoHS compliant ICs (chip marking code: YYWW, e.g. 0419).

CAUTION: Vacuum bags contain moisture sensitive devices!

Surface mount products may have a crack when thermal stress is applied during surface mount assembly if they have absorbed atmospheric moisture. It is recommended that these products are handled under specific conditions described as follows:



Package Type	Storage Condition after unpacking (as maximum)	Rebake Condition as minimum
Pb MQFP 208	Within 168 hours (30°C/60% RH) MSL 3	125°C 24 hours

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