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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Preformed solders

预成形软钎料

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the National Welding Standardization Technical Committee (SAC/TC55). This document was drafted by: Guangzhou Hanyuan New Materials Co., Ltd., China Machinery Engineering Institute Group Harbin Welding Research Institute Co., Ltd., Shenzhen Hanerxin Electronic Technology Co., Ltd., Shenzhen Fumoso Metal Products Co., Ltd., Guangzhou Xianyi Electronic Technology Co., Ltd., Zhejiang Yatong New Materials Co., Ltd., Beijing Compuxiwei Technology Co., Ltd., Yichengda Technology (Jiangxi) Co., Ltd., Hangzhou Huaguang Welding New Materials Co., Ltd. The main drafters of this document are. Du Kun, Sun Xiaomei, Ma Xin, Yang Zhengyong, Chen Weimin, Zhong Haifeng, Zhang Fuwen, Xu Jinhua, Huang Shisheng, Hao Runze, Cai Hangwei. Preformed solder

1 Scope

China's national standard for preformed solders. A preform is solder supplied as a shaped piece - a washer, a disc, a ring, a frame, a rectangle - of controlled dimensions and therefore of controlled volume. It exists because in several kinds of joint the quantity of solder must be exact and cannot be metered by a paste dispenser or a wave: sealing a hermetic package, attaching a semiconductor die to a substrate, joining a heat sink, or making a joint that must be void-free. Too little solder starves the joint, too much bridges or squeezes out where it will short. The preform delivers the right amount by construction, positioned where it is needed, and the flux is often carried within it. What the standard has to control is the alloy composition, the dimensional tolerance that determines the volume, and the surface condition - an oxidised preform will not wet.

This document specifies the terms and definitions, symbols, technical requirements, test methods, inspection methods, and Regulations, packaging, marking, transportation, storage and quality certification. This document applies to solder used for soldering connections of leads and components in electrical and electronic equipment, communication equipment and other machinery manufacturing.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 3131 Tin-lead solder

GB/T 8170 Rules for rounding off values and expression and determination of limit values

GB/T 14265 General rules for the analysis of hydrogen, oxygen, nitrogen, carbon and sulfur in metallic materials

GB/T 15829 Classification and performance requirements of solder flux

GB/T 20422 Lead-free solder

GB/T 33148 Brazing Terminology

GB/T 38265 (all parts) Test methods for solder flux

HG/T 2892 Chemical Reagent Isopropyl Alcohol

3 Terms and definitions

The terms and definitions defined in GB/T 3131, GB/T 20422 and GB/T 33148 and the following apply to this document.

3.1 Preformed solder The solder is pre-processed into a soft solder that is adapted to the shape of the surface to be brazed.

Note. Solder includes two types. with flux and without flux. The flux can be on the surface or inside of the solder.

3.2 Flatness Δh The difference between the distance h from the highest point of the solder surface to the test platform and the nominal thickness t of the solder.

Note. The acquisition of h and t is shown in Figure 1.