

HG

**CHEMICAL INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

HG/T 4070-2008

Silicone rubber sheets

硅橡胶板

(English Translation)

Issued on: April 23, 2008

Implemented on: October 1, 2008

**Issued by: Ministry of Industry and Information Technology of the
People's Republic of China**

Table of Contents

Foreword	3
1 Scope	4
2 Normative references	4
3 Product classification and marking	4
4 Requirements	5
5 Test methods	6
6 Inspection rules	7
7 Marking, packaging, transportation, storage	8

1 Scope

This standard specifies the requirements for the product classification and marking, requirements, test methods, inspection rules, packaging, transportation, storage of silicone rubber boards.

This standard applies to the silicon rubber boards, which are used for solar cell polysilicon production equipment laminators, copper clad laminate vacuum laminators, vacuum laminating machines, electronic discharge machines and other processing equipment accessories, which have high temperature requirements and tear resistance requirements, AND have a maximum temperature of 200 °C during use.

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard; however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 451.1-2002 Paper and board - Determination of size and deviation

GB/T 528-1998 Rubber, vulcanized or thermoplastic - Determination of tensile stress-strain properties (eqv ISO 37:1994)

GB/T 529-1999 Rubber, vulcanized or thermoplastic - Determination of tear strength (Trouser, angle and crescent test pieces) (eqv ISO 34-1:1994)

GB/T 531-1999 Rubber - Determination of indentation hardness by means of pocket

hardness meters (idt ISO 7619:1986)

GB/T 3512-2001 Rubber, vulcanized or thermoplastic - Accelerated ageing and heat resistance tests - Air-oven method (eqv ISO 188:1998)

3.1 Classification

Silicone rubber boards are divided into three categories, according to tear strength: low tear resistance silicone rubber boards, medium tear resistance silicone rubber boards,

5 Test methods

5.3.4

The heat resistance test shall be carried out, in accordance with the provisions of GB/T 3512-2001; the test conditions are: $(200 \pm 2) ^\circ\text{C} \times 168 \text{ h}$.

6.1 Group-batching and sampling

For the silicone rubber boards of the same formula, same specification, same variety, 200 m² shall form a batch (if less than 200 m², the contracted quantity shall be counted as a batch). Specifications, deviations, appearance quality are inspected piece by piece (strip). Enough specimens are taken from each batch, for physical and mechanical property inspection.

6.2.1 Exit-factory inspection

The inspection items include: specification and deviation, appearance quality, hardness, tensile strength, elongation at break, tear strength of the rubber board.

6.2.2 Type test

All the technical requirements, which are listed in this standard, are type inspection items. Usually, type inspection shall be carried out, in one of the following situations:

- a) Type finalization of trial production of new products or trans-plant production of old products.
- b) After the formal production, where there are major changes in the structure, material, process, which may affect the performance of the product.
- c) During normal production, inspection is carried out once a year.
- d) When the production is restored, after suspension for more than half a year;
- e) When there is a big difference between the exit-factory inspection results and the last type inspection.

f) When the national quality supervision agency proposes a type inspection requirement.

6.3 Judgment rules

If one of the specifications, deviations, appearance quality is unqualified, the piece (strip) of silicone rubber board is an unqualified product.

If one of the physical and mechanical properties, which are listed in Table 2, does not meet the requirements, take another double quantity of specimens, to re-inspect the