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

GB/T 39164-2020

**Tools for moulding - Thermal insulating sheets for injection
moulds**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to amend and adopt ISO 15600.2000 "Insulation panels for molding injection molds".

Compared with ISO 15600.2000, this standard has structural adjustments.

---Add "2 Normative Reference Documents" and quote GB/T 4169.8-2006 "Plastic Injection Mold Parts Part 8.Templates". Other chapters are postponed;

--- The original "2 size" is extended and revised to "3 structure type and size";

--- "3 Structural type and size" is composed of "3.1 General requirements", "3.2 Type A and B heat insulation panels" and "3.3 Type C heat insulation panels";

--- Modify the "Insulation board mainly used to reduce the heat transfer between the injection mold and the injection molding machine table" in "Scope 1" to "Insulation

The board is mainly used to reduce the heat transfer between the injection mold and the injection molding machine table and the external heat dissipation of the injection mold" and move to 3.1;

--- Modify the "Insulation panel size selection to match the template size specified in ISO 6753-2" in "1 Scope" to "Insulation panel size"

Choose to match the template size specified in GB/T 4169.8-2006 or be determined by the manufacturer" and move to 3.1;

---Select "B type heat insulation board not less than 156mm x 156mm" in "1 Scope", choose the hole diameter and the installation diameter of the positioning ring

(dia. 90mm)" is changed to "For type B heat insulation board with w x l not less than 156mm x 156mm, the aperture d should be selected as

The installation diameter of the positioning ring (dia. 90mm or other corresponding diameters) matches" and moved to 3.2;

---The original "2 size" "for the type B heat insulation board whose w xl is less than 156mm x156mm, the hole diameter is determined by the manufacturer"

Go to 3.2, and change it to "For type B insulation panels with w xl less than 156mm x156mm, the aperture d is determined by the manufacturer";

---The original "2 size" in Figure 2 is modified to Figure 1, Figure 3 is modified to Figure 2, and moved to 3.2;

---Move the table 1 in the original "2 size" to 3.2;

---Move the "Figure 1 Insulation Panel Installation Example" in "1 Scope" to 4.2, and amend it to "Figure 4 "70oC<=operating temperature<=90oC" Note

Installation example of injection mold heat shield", the drawing has been edited;

--- Amend the original "4 Design Requirements" to "5 Design Requirements";

--- Modify the original "3 material" to "6 material".

Compared with ISO 15600.2000, this standard has technical differences, and the clauses involved in these differences have been passed on the outer margins.

The vertical single line (?) is marked. The corresponding technical differences and their reasons are as follows.

---Added "3.3 C type heat insulation board", which is a common type in China;

---Added "4 Heat insulation board installation", instructing users to choose the heat insulation board installation form according to the working temperature range and usage of the injection mold;

--- "6 Materials", "The type of material is determined by the manufacturer" is revised to "The material is recommended to use phenolic resin bakelite or made of

"The creator determines" is a common domestic material.

This standard has made the following editorial changes.

--- Amend "1 Scope" "This standard specifies the basic dimensions and tolerances of Type A and Type B heat insulation panels for plastic and rubber molds" as

"This standard specifies the structure, dimensions and tolerances of type A~C heat insulation panels for plastic and rubber molds";

---Move the "Unit is mm" in "1 Scope" to the upper right corner of Figure 1~Figure 3;

---In "1 scope", "suitable for injection mold heat insulation board" is added;

--- Change "dia. 90" in Figure 2 to "dia. d", and add "d to choose dia. 90mm or be determined by the manufacturer.";

--- Amend "Insulation Board ISO 15600A-96x96x6" in "7 Mark" to "Insulation Board GB/T 39164-A96x96x6".

This standard was proposed and managed by the National Mold Standardization Technical Committee (SAC/TC33).

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1 Scope

This standard specifies the structure, dimensions, tolerances and markings of type A~C type heat insulation panels for plastic and rubber molds, and gives material descriptions.

Minghe design requirements.

This standard applies to heat insulation panels for injection moulds.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 4169.8-2006 Plastic injection mold parts Part 8.Template

3.1 General requirements

The heat insulation board is mainly used to reduce the heat transfer between the injection mold and the injection molding machine table and the external heat dissipation of the injection mold. Insulation board size gauge

The grid selection matches the template size specified in GB/T 4169.8-2006 or is determined by the manufacturer.

3.2 Type A and Type B insulation panels

The structure and dimensions of Type A and Type B insulation panels are shown in Figure 1, Figure 2 and Table 1, respectively.

For type B heat insulation board with $w \times l$ not less than 156mm x156mm, the hole diameter d is selected with the installation diameter of the positioning ring ($\phi 90$ mm or

Other corresponding diameters) match. For type B insulation panels with $w \times l$ less than 156mm x156mm, the hole diameter d is determined by the manufacturer.