INTERNATIONAL STANDARD

ISO 15600

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Tools for moulding — Thermal insulating sheets for injection moulds

Outillage de moulage — Feuilles d'isolation thermique dans les moules d'injection

Reference number
ISO 15600:2000(E)

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 15600 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

Tools for moulding — Thermal insulating sheets for injection moulds

1 Scope

This International Standard lays down the basic dimensions and tolerances, in millimetres, of type A and B thermal insulating sheets for plastic and rubber moulds. Thermal insulating sheets are used in applications where heat transmission between injection mould and machine platen has to be reduced. This International Standard also gives material guidelines and design requirements, and specifies the designation of the insulating sheets.

The dimensions of the sheets have been chosen to match those of mould plates specified in ISO 6753-2. For type B sheets measuring 156 mm × 156 mm and larger, the diameter of the hole has been chosen to match the fitting diameter (∅ 90 mm) of locating rings.

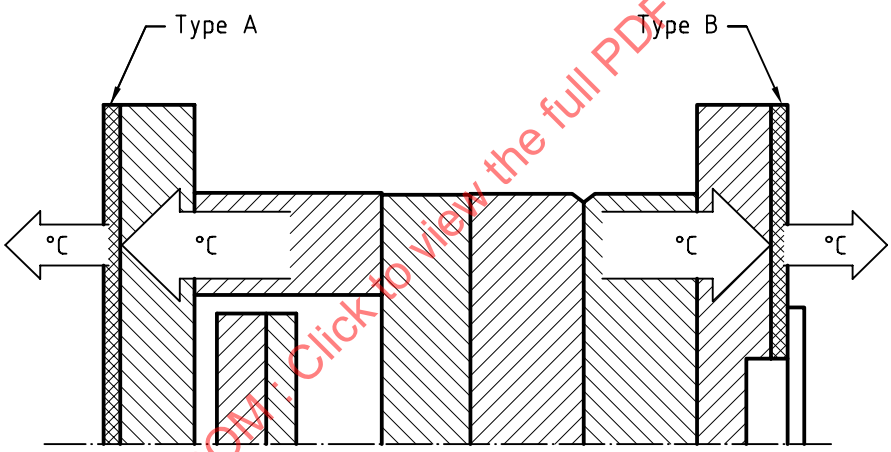

Figure 1 — Example of mounting of thermal insulation sheets

2 Dimensions

See Figures 2 and 3 and Table 1.

For type B thermal insulating sheets, where $w \times l$ is smaller than 156 mm × 156 mm, the diameter of the hole is left to the manufacturer's discretion.

Dimensions in millimetres

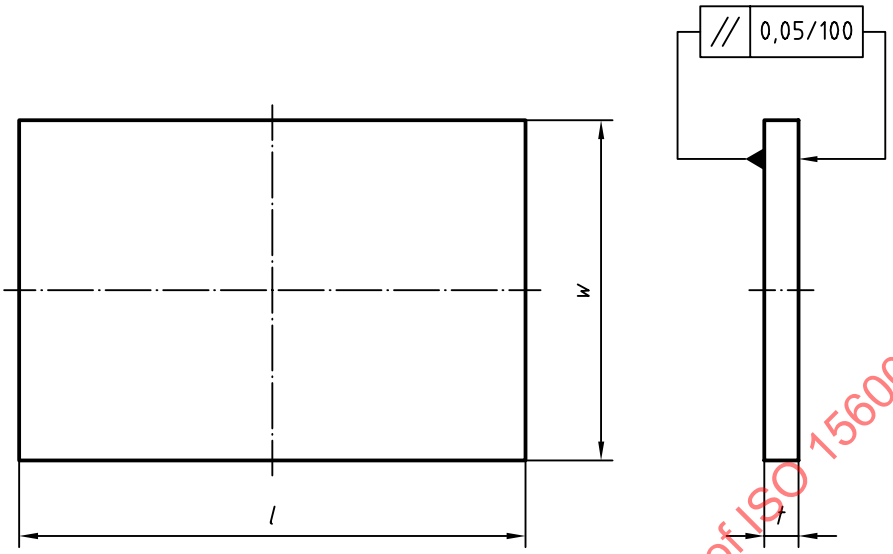

Figure 2 — Type A thermal insulating sheet

Dimensions in millimetres

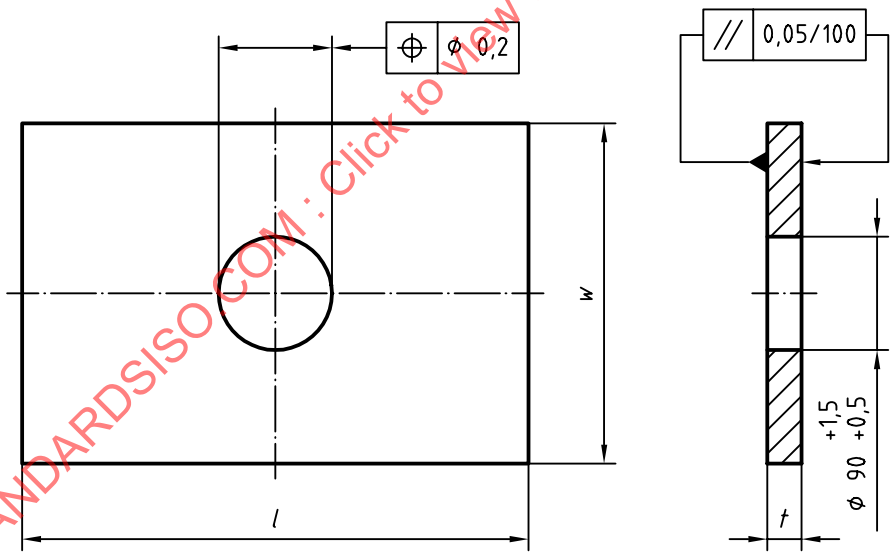

Figure 3 — Type B thermal insulating sheet

Table 1 — Dimensions of type A and B thermal insulating sheets

Dimensions in millimetres

Dimensions		
w $^{-2,0}_{-2,5}$	l $^{-2,0}_{-2,5}$	t $^{-0,2}_{-0,4}$
96	× 96	6
	× 120	
120	× 120	6
	× 156	
156	× 156	6
	× 196	
	× 220	
	× 246	
	× 276	
	× 310	
196	× 196	6
	× 220	
	× 246	
	× 276	
	× 310	
	× 350	
	× 396	
220	× 220	6
	× 246	
	× 276	
	× 310	
	× 350	
246	× 246	6
	× 276	
	× 310	
	× 350	
	× 396	
	× 446	
	× 496	
276	× 276	6
	× 310	
	× 350	
	× 396	
	× 446	
	× 496	
	× 556	

Dimensions		
w $^{-2,0}_{-2,5}$	l $^{-2,0}_{-2,5}$	t $^{-0,2}_{-0,4}$
310	× 310	6 and 10
	× 350	
	× 396	
	× 446	
	× 496	
	× 556	
	× 626	
350	× 350	6 and 10
	× 396	
	× 446	
	× 496	
	× 556	
	× 626	
	× 706	
396	× 396	6 and 10
	× 446	
	× 496	
	× 556	
	× 626	
	× 706	
	× 796	
446	× 446	6 and 10
	× 496	
	× 556	
	× 626	
	× 706	
	× 796	
	× 896	
496	× 496	6 and 10
	× 556	
	× 626	
	× 706	
	× 796	
	× 896	
	× 996	

Dimensions		
w $^{-2,0}_{-2,5}$	l $^{-2,0}_{-2,5}$	t $^{-0,2}_{-0,4}$
556	× 556	10
	× 626	
	× 706	
	× 796	
	× 896	
	× 996	
	× 1 116	
626	× 626	10
	× 706	
	× 796	
	× 896	
	× 996	
	× 1 116	
706	× 706	10
	× 796	
	× 896	
	× 996	
	× 1 116	
796	× 796	10
	× 896	
	× 996	
	× 1 116	
896	× 896	10
	× 996	
	× 1 116	

3 Material

The type of material is left to the manufacturer's discretion.

4 Design requirements

The compressive strength shall be a minimum of 170 N/mm^2 at 140 °C, and a minimum of 100 N/mm^2 at 200 °C.

The coefficient of thermal conductivity, λ, shall be at maximum 0,3 W/mK.

5 Designation

Thermal insulating sheets according to this International Standard shall be designated by:

a) “Thermal insulating sheet”;

b) a reference to this International Standard, i.e. ISO 15600;

c) the type (A or B);

d) the length, l, in millimetres;

e) the width, w, in millimetres;

f) the thickness, t, in millimetres.

EXAMPLE A thermal insulating sheet of type A, of length, $l = 96$ mm, width, $w = 96$ mm and with thickness, $t = 6$ mm is designated as follows:

Thermal insulating sheet ISO 15600 A - 96 × 96 × 6