

SEMI D53-0708 (Reapproved 0815) SPECIFICATION FOR LIQUID CRYSTAL DISPLAY (LCD) PELLICLES

This Standard was technically approved by the Flat Panel Display – Materials & Components Global Technical Committee. This edition was approved for publication by the global Audits and Reviews Subcommittee on May 19, 2015. Available at www.semiviews.org and www.semi.org in August 2015; originally published July 2008.

1 Purpose

1.1 This Specification defines standard stand off, transmittance, and strength of pellicle films used for masks.

2 Scope

2.1 These dimensions apply to pellicle for masks that are principally used in fabricating liquid crystal displays. The mask size specifies range from 330×450 mm to 1220×1400 mm.

NOTICE: SEMI Standards and Safety Guidelines do not purport to address all safety issues associated with their use. It is the responsibility of the users of the Documents to establish appropriate safety and health practices, and determine the applicability of regulatory or other limitations prior to use.

3 Referenced Standards and Documents

3.1 *SEMI Standards and Safety Guidelines*

SEMI D6 — Specification for Liquid Crystal Display (LCD) Mask Substrates

NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.

4 Terminology

4.1 *Definitions*

4.1.1 *stand off* — a certain distance on a mask or reticle to a membrane.

5 Ordering Information

5.1 Ordering information shall be discussed between suppliers and users.

6 Requirements

6.1 *Stand Off Size* — Stand off size shall be defined as shown in Table 1.

6.2 *Transmittance* — Average transmittance shall be 94.5% or more within the range of wave length of 360 to 440 nm.

6.3 *Measurement Condition for Pellicle Film Strength*

6.3.1 Not to be broken by air blow.

6.3.2 Air nozzle diameter: 1 mm.

6.3.3 Air pressure: 3 kg/cm².

6.4 Distance from air nozzle to film: 5 cm.

6.5 Air blow time: 5 sec.

Table 1 Stand Off Size (mm)

<i>Mask Size</i>	<i>Stand Off</i>
330 × 450	5.9
390 × 610	5.9
520 × 610	5.9

<i>Mask Size</i>	<i>Stand Off</i>
500 × 750	7
520 × 800	5.9
800 × 920	7
850 × 1000	7
850 × 1200	7
850 × 1400	7
1220 × 1400	7

NOTICE: SEMI makes no warranties or representations as to the suitability of the Standards and Safety Guidelines set forth herein for any particular application. The determination of the suitability of the Standard or Safety Guideline is solely the responsibility of the user. Users are cautioned to refer to manufacturer's instructions, product labels, product data sheets, and other relevant literature, respecting any materials or equipment mentioned herein. Standards and Safety Guidelines are subject to change without notice.

By publication of this Standard or Safety Guideline, SEMI takes no position respecting the validity of any patent rights or copyrights asserted in connection with any items mentioned in this Standard or Safety Guideline. Users of this Standard or Safety Guideline are expressly advised that determination of any such patent rights or copyrights and the risk of infringement of such rights are entirely their own responsibility.