

OVERALL QUALITY ASSURANCE SPECIFICATIONS FOR FLOAT GLASS

MANUFACTURING STANDARDS

Hartung Glass Industries manufactures fabricated glass products that meet and exceed the following standards:

- All Flat Glass Products: ASTM C1036 and CAN/CGSB-12.1-M
- Heat Treated Glass: ASTM C1048, ANSI Z97.1 and CPSC 16CFR1201 CAT I and II
- Mirrors: ASTM C1503
- Insulating Glass Units: ASTM C1249 - 18, ASTM E2190 and are Class A rated
- Wire Glass: ASTM C1036 and listed by UL as fire retardant material.
- Laminated Flat Glass: ASTM C1172, ANSI Z97.1, CPSC 16CFR1201 Category I and II as well as CAN/CGSB-12.1-M.

A. SCRATCHES, RUB MARKS AND CRUSH

Main Zone: See Diagram 1. When viewing glass in normal daylight, without direct sunlight, any scratch, rub mark or crush visible from 5.5 feet, when standing in the viewing area (see Diagram 2), is not acceptable.

Rim Zone: See Diagram 1. When viewing glass in normal daylight, without direct sunlight, any scratch, rub mark or crush from 11 feet, when standing in the viewing area (see Diagram 2), is not acceptable.

EDGE (See Diagram 1)			
Tempered Lites		Annealed Lites	
With Edgework	Without Edgework	With Edgework	Without Edgework
No visible damage allowed on the edge	No damage is to extend further than 1/4" in from the edge of the glass	No visible damage allowed on the edge.	No damage that would weaken the structure of the lite is allowed

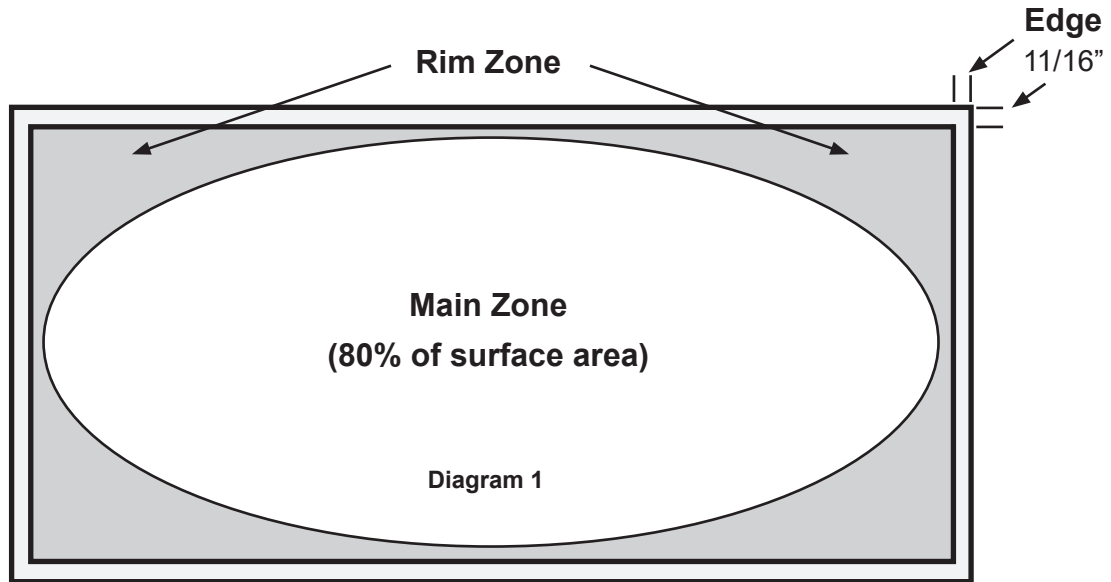
B. SURFACE AND SUBSURFACE (Cat eyes, rash, seeds, pitting and other defects)

Main Zone: See Diagram 1. When viewing glass in normal daylight, without direct sunlight, any cate eye, stone or other manufacturing defect visible from 5.5 feet, when standing in the viewing area (see Diagram 2), is not acceptable.

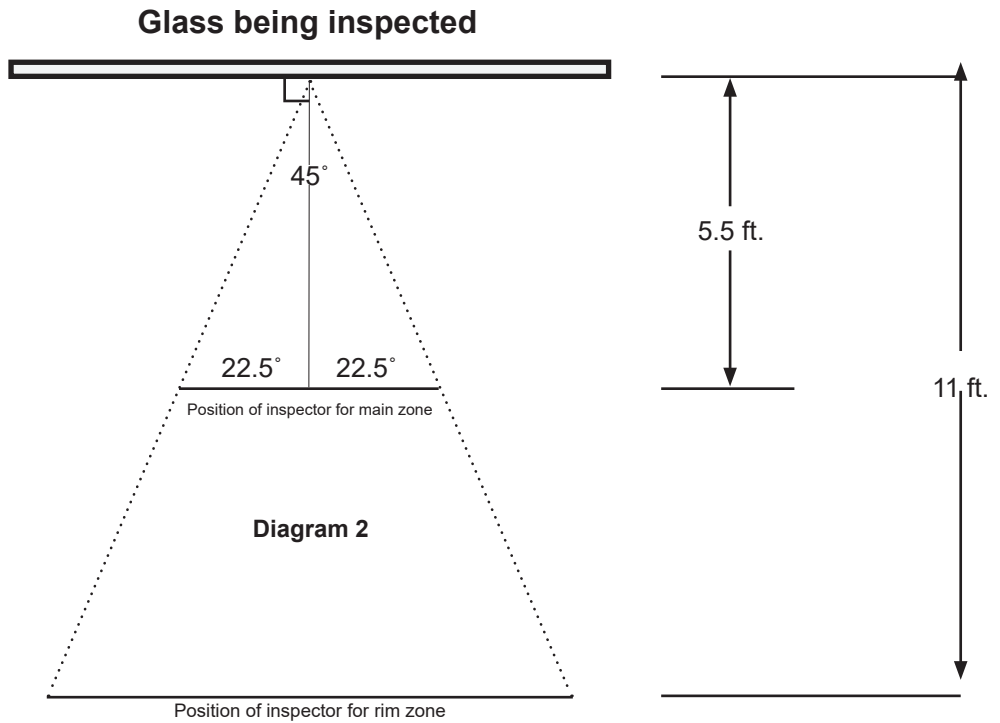
Rim Zone: See Diagram 1 and ASTM 1036 - Table 2.

EDGE (See Diagram 1)			
Tempered Lites		Annealed Lites	
With Edgework	Without Edgework	With Edgework	Without Edgework
No flaws that adversely affect the appearance of the edge are allowed	Flaws are acceptable in this area	No flaws that adversely affect the appearance of the edge are allowed	No flaw that would weaken the structure of the lite is allowed

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When inspecting glass, the surface of the glass should be divided into three zones. The Edge is the area from the edge to 11/16". The Main Zone is an oval in the center of the glass comprising of 80% of the glass surface. The Rim Zone is the remainder of the area that is left.



When inspecting a lite of glass, you should be standing 5.5 - 11 feet to from the surface of the glass and up to a 45° angle that is centered on the perpendicular to the glass surface.