

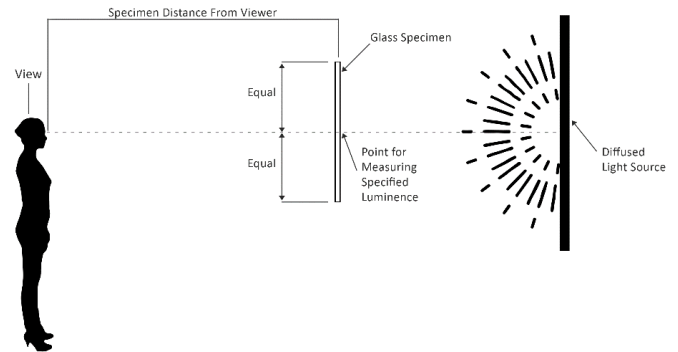
## Flat Glass Inspection Criteria per ASTM C 1036 – 06 (abridged)<sup>1</sup>

### Terminology:

<b>Crush</b>	lightly pitted condition with a dull gray appearance.
<b>Dig</b>	deep, short scratch
<b>Dirt</b>	small particle of foreign matter embedded in the surface of flat glass.
<b>Gaseous inclusion</b>	round or elongated bubble in the glass.
<b>Linear blemish</b>	scratches, rubs, digs, and other similar imperfections.
<b>Point blemish</b>	crush, knots, dirt, stones, gaseous inclusions, and other similar imperfections.
<b>Rub</b>	abrasion of a glass surface producing a frosted appearance.
<b>Scratch</b>	damage on a glass surface in the form of a line caused by the movement of an object across and in contact with the glass surface.

### Inspection:

- Visual inspection should be done with the naked eye.
- The inspector shall place the glass in a vertical position
- Inspector shall view through the glass at an angle of 90°
- Lighting should be daylight level (**without direct sunlight**) or other uniform backlight that simulates daylight.
- View at the distance specified by defect type.



### Quality Criteria:

#### Allowable Point Blemish, (viewing distance 39")

- Blemish size <1.2mm (0.05") allowed without restriction.
- Blemish size >1.2mm (0.05") <2.0mm (0.10") allowed with a minimum separation of 600mm (24").
- Blemish size >2.0mm (0.10") none allowed.

To determine point blemish size, measure height and width of blemish and average. Only the point blemish is to be measured, and not any distortion that may be present.

#### Allowable Linear Blemish, (viewing distance starting at 160")

- Faint or light scratch <75mm (3") allowed.
- Medium scratch ≤75 (3") allowed with a minimum separation of 600mm (24")
- Medium or heavy scratch >75mm (3") are not allowed
- To determine scratch intensity start at 160" and move closer until scratch becomes visible, refer to table.

Detection Distance	Blemish Intensity
Over 3.3m (132")	Heavy
1.01m – 3.3m (40" – 132")	Medium
0.2 – 1 m (8" – 39")	Light
Less than 0.2m (8")	Faint