



Flat Glass Inspection Criteria per ASTM C 1036-06 (abridged)¹

Terminology:

Crush – lightly pitted condition with a dull gray appearance

Dig – deep, short scratch

Dirt – small particle of foreign matter embedded in the surface of flat glass

Gaseous inclusion – round or elongated bubble in the glass

Linear blemish – scratches, rubs, digs, and other similar imperfections

Point blemish – crush, knots, dirt, stones, gaseous inclusions, and other similar imperfections

Rub – abrasion of a glass surface producing a frosted appearance

Scratch – 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:

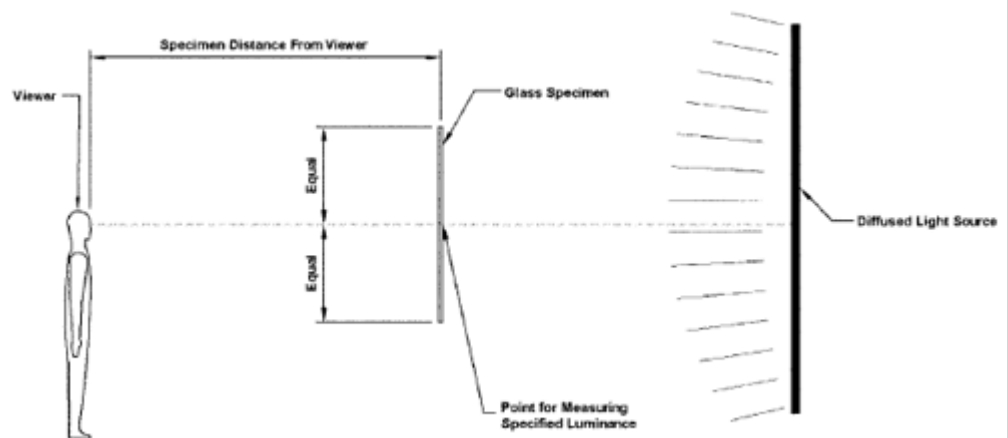
Visual in section should be done with the naked eye.

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.



¹ Information Provided By: Northwestern Industries, Inc. / Document Q-1003-001



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") non 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") is allowed
- Medium scratch \leq 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 in.)	Heavy
3.3 to 1.01 m (132 to 40 in.)	Medium
1 to 0.2 m (39 to 8 in.)	Light
Less than 0.2 m (8 in.)	Faint