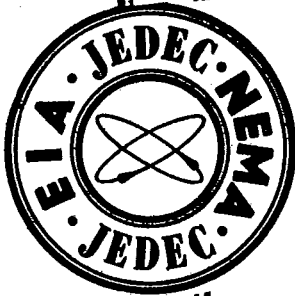


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GLOSSARY OF TERMS
USED IN THE DESCRIPTION OF
GLASS COMPONENTS
AND OF THEIR DEFECTS

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GLOSSARY OF TERMS
USED IN THE DESCRIPTION OF GLASS COMPONENTS
AND OF THEIR DEFECTS

The following terms are used in the glass industry to describe glass component parts, characteristics and defects.

Note: For dimensional limits refer to specific product specifications.

ADHERED GLASS

Small glass particles fused to the glass surface (See Loose Glass).

AIR LINE

An elongated gaseous inclusion in tubing or cane.

ANNEAL

To prevent or remove objectionable stresses in glassware by controlled cooling techniques.

ANNEALING POINT

The temperature at which internal stress is substantially relieved in 15 minutes in a piece of glass having a thickness of approximately 1mm. (For test procedure see ASTM Test Method C336).

BLEMISHES, DIMENSION OF

Unless otherwise specified, limits of size of a blemish are for maximum dimension of the blemish.

BLISTER (Bubble)

A gaseous inclusion, differentiated from a seed by its larger size.

BODY

That portion of a bulb that lies above the CD line. (Body = Side + Top) Applied to cathode ray tube bulbs. That section of the bulb between the face and neck. In sealed units this may be referred to as a funnel.

BOSS

The slightly tapered protuberance on a molded flare which is usually ground off to form an opening to which current conductors or an exhaust tubing may be sealed by the tube manufacturer.

BOW OR CAMBER

Longitudinal curvature in tubing or cane.



BRUISE (Bruise-Check) (Bulb)

A fissure which is usually half-moon or of a similar irregular configuration and has no glass removed from the surface. It is iridescent under bright light. (Caused by impact).

BULB

A hollow glass enclosure or envelope for an electronic device.

BULB NOMENCLATURE

Bulbs are designated by a code number as, for example, T28D2.

1. The first letter (T) indicates the type of bulb (S,T,ST,G,GT, J,C, etc.)
2. The following number (28) indicates the major diameter in eighths of an inch.
3. The next letter (D) indicates a specific design that differs from the other T28 bulbs in dimensions above the CD line.
4. The final number (2) distinguishes bulbs that are alike in the above three respects but which are different in features below the CD line.

Ref. American Standard Nomenclature for Glass Bulbs C79.1 1948
American Standards Association.

BULB, ONE PIECE

Applied to cathode ray tube bulbs. A hand or machine blown unit in which the top, body and neck are molded in one piece.

BULB SIZE

Sizes of bulbs are designated by a number indicating the design dimensions, in eighths of an inch or fractions of eighths, of the major diameter of that part of the bulb above the CD line. Thus, a bulb 1-5/16" in diameter is known as size 10-1/2. Bulb sizes are specified to the nearest 1/32", for example 8-3/4.

BULLS EYE

As applied to oscillograph bulbs. A lens effect occurring in the viewing portion of the bulb.

BULLS EYE TOP

Lens effect occurring at the closed end of an item.

BUTTERFLY TOP

An appearance on the top of a bulb that is suggestive of the shape of a butterfly.

CAMBER

See Bow.



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CANE

Solid glass rod.

CARBONIZED MOLD OR PLUNGER MARK (Pressed Ware)

Very minute irregularities disturbing the intended surface.

CD LINE

An arbitrary reference line at the junction of the neck and body at the end from which the bulb is blown.

CHECK

A fissure in the glass which does not extend through the thickness.

CHILL WRINKLE

A rippled or wavy surface.

CHIPPED

Depression or irregularity on a glass surface caused by the unintentional removal of glass (as in flaking).

CHIPPED AND BRUISED (Cut Tubing)Chip

A depression or irregularity on the cut surface caused by the unintentional removal of glass (as in flaking) where only part of the thickness is removed.

Bruised

A fissure which is usually half-moon or of a similar irregular configuration and has no glass removed from the surface. It is iridescent under bright light.

CORD

A narrow band of glass having a visibly different index of refraction and other properties differing from the surrounding glass.

CRACK

A fissure in the glass extending through the thickness.

CULLET

The portion of the neck on a bulb that is cut off and discarded at the time of sealing by the tube manufacturer.

CUT-OFF

The edge left on a bulb by the cutting-off process during manufacture. Types include flame cut-off, ribbon machine cut-off, hot wire cut-off, etc. Applied to cathode ray tube bulb. The operation of cutting the finished bulb free from the remainder of the glass used in blowing. Also identifies the finish of the open end of the bulb.

- (a) FLAME CUT-OFF: Cutoff by means of hard fires.
- (b) CRACKOFF: Cracked off by hammer blow at end of machine blowing operation.
- (c) HOT WIRE CUT-OFF: Cracked off by means of successive hot and cold applications to a narrow section.

CUT-OFF CROOKED

Bulb whose edge at cutoff is uneven or not horizontal.

DEFECT SERIES

Defects are classified by code in accordance with their effect upon the glassware or upon the ultimate product as follows:

- 100 Series - Defects that may cause the ultimate product to be inoperative.
- 200 Series - Defects that may cause the glassware to be unserviceable.
- 300 Series - Defects that may cause the appearance of the ultimate product to be objectionable.
- 400 Series - Defects of dimensional distribution in the glassware.

DEVITRIFICATION

A partial change from the amorphous of vitreous state to the crystalline state, which may appear as an area of increased opacity. (Do not confuse with Weathering).

DIAMETER, MAJOR

The largest design diameter of the bulb above the CD line. Not to be confused with the maximum due to tolerance variation.

DIMPLE

A depression in the contour.

DIRTY

Contamination of the surface of glass with foreign material.

DOME

The tubular protuberance at the top of a GT - or ST - type bulb.

